

Waste Isolation Pilot Plant
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Attachment B		
Section	Change	Explanation of Change
Attachment B	Changed EPA hazardous waste “code” to EPA hazardous waste “number.”	Modified for consistency with NMAC language.
Attachment B	Changed “characterization” to “waste analysis”	Modified for consistency with NMAC language in 20.4.1.500 NMAC (incorporating 40 CFR §264.13).
Attachment B	Provided corrected references throughout due to formatting changes.	Corrected formatting.
Table of Contents for Attachment	Modified titles, figures and page numbers to reflect modification made in the PMR.	Corrected formatting.
List of Figures	B-2 ————— Data Collection Design for Characterization of Newly Generated Waste B-3 ————— Data Collection Design for Characterization of Retrievably Stored Waste B-5 ————— TRU Mixed Waste Screening Flow Diagram	Figures B-2 and B3 were deleted and a new Figure B2-1 has been added to Attachment B2. The new Figure B2-1, Approach for Solid and Headspace Gas Sampling and Analysis to Obtain Supplemental Waste Analysis Information, was applicable to both newly generated and retrievably stored TRU mixed waste; therefore, the deleted figures were no longer necessary. Figure B-5 was deleted from Attachment B and moved to Attachment B7. The following figures are now provided in Permit Attachment B7: Figure B7-1 TRU Mixed Waste Screening Flow Diagram; Figure B7-2 Waste Stream Approval Process; Figure B7-3 Waste Examination Process; Figure B7-3 Waste Examination Process at WIPP, and Figure B7-4 Waste Examination at an Off-Site Facility.
Introduction and Attachment Highlights	This WAP includes test methods; <u>and</u> details of planned waste sampling and analysis <u>for complying with the general waste analysis requirements of the WIPP Hazardous Waste Facility Permit (HWFP), 20.4.1.500 NMAC (incorporating 40 CFR §264.13), Section 311(a) of Public Law (Pub. L.) 108-137 and Section 310(a) of Pub. L. 108-447. The WAP also includes a description of the quality assurance (QA)/quality control (QC) program.</u> a description of the waste shipment screening and verification process, and a description of the quality assurance (QA)/quality control (QC) program.	Modified to provide clarification that general waste analysis is performed in accordance with NMAC and as described in Section 311 and 310. The analysis must provide data of sufficient quality for the Permittees use in the WSPF approval process. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.

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Attachment B - Introduction and Attachment Highlights	TRU mixed waste contains both TRU radioactive and hazardous components, as defined in 20.4.1.800 NMAC (incorporating 40 CFR, §268.35(d)), and in the Federal Facility Compliance Act, Public Law 102- 386, Title 1, §3021(d). It is designated and separately packaged as either contact-handled (CH) or remote-handled (RH), based on the radiological dose rate at the surface of the waste container. RH TRU mixed wastes will not be received and disposed at the WIPP facility.	Removed RH TRU mixed waste prohibition language. The justification for this change is provided in Section 1.1. of the revised PMR.
Introduction and Attachment Highlights	Retrievably stored waste is defined as TRU mixed waste generated after 1970 and before New Mexico Environmental Department (NMED) notifies the Permittees, by approval of the final audit report, that the characterization waste analysis requirements of the WAP at a generator/storage site have been implemented.	Editorial
Introduction and Attachment Highlights	Acceptable knowledge (AK) information is assembled for both retrievably stored and newly generated waste. Waste analysis for R retrievably stored TRU mixed waste will be characterized performed on an ongoing basis, as the waste is retrieved. Waste analysis for N newly generated TRU mixed waste is typically characterized performed as it is generated, although some characterization waste analysis occurs post-generation. Waste characterization requirements for retrievably stored and newly generated TRU mixed wastes differ, as discussed in Sections B-3d(1) and B-3d(2).	Editorial to clarify retrievably stored and newly generated waste analysis requirements.
Attachment B - Introduction and Attachment Highlights	Generator/storage sites shall use the characterization techniques acceptable knowledge as described in this WAP to assign appropriate Waste Matrix Code Groups for WIPP disposal.	Clarified that generator/storage sites shall use acceptable knowledge to assign waste matrix code groups. Justification for this change is provided in Sections 1.2.1 and 1.2.2 of the revised PMR and Appendix I of the Section 311 NOD Comment/Response Matrix.
Introduction and Attachment Highlights	Waste characterization requirements for these groups are specified separately in Section B-2 of this WAP.	Editorial. Removed a bad reference.

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Introduction and Attachment Highlights	Homogeneous solids, or solid process residues , are defined as solid materials, excluding soil, that do not meet the NMED criteria for classification as debris (20.4.1.800 NMAC (incorporating 40 CFR §268.2[g] and [h])). Included in the series of solid process residues homogeneous solids are inorganic process residues, inorganic sludges, salt waste, and pyrochemical salt waste. Other waste streams are included in this Summary Category Group based on the specific waste stream types and final waste form. This Summary Category Group is expected to contain toxic metals and spent solvents. This category includes wastes that are at least 50 percent by volume solid process residues homogeneous solids .	Editorial.
Introduction and Attachment Highlights	S4000 - Soils/Gravel This Summary Category Group includes S4000 waste streams that are at least 50 percent by volume soil/gravel. This Summary Category Group is expected to contain toxic metals. Soils/gravel are further categorized by the amount of debris included in the matrix.	Editorial.
Introduction and Attachment Highlights	If a waste does not include at least 50 percent of any given Summary C ategory Group by volume, characterization waste analysis shall be performed using the waste characterization analysis process required for the category constituting the greatest volume of waste for that waste stream (see Section B-3d).	Editorial.

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Introduction and Attachment Highlights	<p><u>The generator/storage sites shall analyze their waste in accordance with this attachment and relevant provisions of Permit Attachment B1 Waste Analysis Sampling Methods, Permit Attachment B2 Statistical Methods Used in Sampling and Analysis, Permit Attachment B3 Quality Assurance Objectives for Waste Analysis Methods, and Attachment B4 TRU Mixed Waste Analysis Using Acceptable Knowledge, and assure that waste proposed for storage and disposal at WIPP meets the TSDF-WAC (Permit Conditions II.C.3.a. through II.C.3.b). The generator/storage site shall assemble the Acceptable Knowledge (AK) information into an auditable record¹ for the waste stream as described in Permit Attachment B4. For those waste streams with a NMED approved AK Sufficiency Determination, sampling and analysis per the methods described in Permit Attachments B1 and B2 are not required.</u></p>	<p>Clarified the generator/storage sites' responsibilities for characterizing analyzing TRU mixed waste to assure compliance with the WIPP Treatment, Storage and Disposal waste acceptance criteria (TSDF-WAC), assembling the AK record and performing sampling and analysis to resolve assignment of EPA hazardous waste numbers. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment/Response Matrix.</p>
Introduction and Attachment Highlights	<p><u>For those waste streams that have sufficient AK information to assign EPA hazardous waste numbers, the generator/storage sites may submit a request to the Permittees for an AK Sufficiency Determination. The request will include an AK Summary Report and address the following required items:</u></p>	<p>Described how generator/storage sites may request the Permittees to request an AK Sufficiency Determination from NMED. Provided the information that must be included in the AK Summary Report submitted with the request for AK sufficiency. Approval of an AK sufficiency determination exempts a generator/storage site from performing the sampling and analysis per Permit Attachments B1 and B2. The justification for this change is provided in Section 1.2.1. of the revised PMR</p>
Introduction and Attachment Highlights	<ol style="list-style-type: none"> <u>1. Mandatory AK information is available (Permit Attachment B4-2a and B4-2b);</u> <u>2. A waste stream has been properly delineated and meets the HWFP definition of a waste stream (Permit Attachment B4-2b and B-1a);</u> 	<p>Described how generator/storage sites may request the Permittees to request an AK Sufficiency Determination from NMED. Provided the information that must be included in the AK Summary Report submitted with the request for AK sufficiency. Approval of an AK sufficiency determination exempts a generator/storage site from performing the sampling and analysis per Permit Attachments B1 and B2. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment/Response Matrix.</p>

¹ "Auditable records" mean those records which allow the Permittees to conduct a systematic assessment, analysis, and evaluation of the Permittees compliance with the WAP and this Permit.

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Introduction and Attachment Highlights	<p>3. <u>The AK process described in the HWFP was followed (for example, AK personnel were appropriately trained; discrepancies in the AK record were documented and resolved) (Permit Attachment B4-3a);</u></p> <p>4. <u>The generator/storage site has developed a written procedure for compiling the AK information and assigning hazardous waste numbers as required by Permit Attachment B4-3b;</u></p> <p>5. <u>The generator/storage site has assessed the AK process (Permit Attachment B4-3b);</u></p>	<p>Described how generator/storage sites may request the Permittees to request an AK Sufficiency Determination from NMED. Provided the information that must be included in the AK Summary Report submitted with the request for AK sufficiency. Approval of an AK sufficiency determination exempts a generator/storage site from performing the sampling and analysis per Permit Attachments B1 and B2. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment/Response Matrix.</p>
Introduction and Attachment Highlights	<p>6. <u>The generator/storage site has documented evidence that the waste meets the TSDF-WAC (Permit Conditions II.C.3.a. through II.C.3.h).</u></p> <p><u>The Permittees will review the request, resolve comments with the generator/storage site and if the Permittees determine that the AK is sufficient, they may forward the request to NMED for an AK Sufficiency Determination. Based on NMED's determination, the Permittees will notify the generator/storage sites whether the AK information is sufficient.</u></p> <p><u>If the NMED determines that the AK is insufficient or if the Permittees do not submit an AK Sufficiency Determination request, then sampling and analysis per the methods described in Permit Attachments B1 and B2 is required to resolve the assignment of EPA hazardous waste numbers. The generator/storage site shall perform sampling and analysis on a representative sample of the waste stream using headspace gas sampling and analysis for debris waste and solids sampling and analysis for homogeneous solid or soil/gravel waste streams.</u></p>	<p>Described how generator/storage sites may request the Permittees to request an AK Sufficiency Determination from NMED. Provided the information that must be included in the AK Summary Report submitted with the request for AK sufficiency. Approval of an AK sufficiency determination exempts a generator/storage site from performing the sampling and analysis per Permit Attachments B1 and B2. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment/Response Matrix.</p>

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Introduction and Attachment Highlights	<p><u>After a complete AK record has been compiled and an AK Sufficiency Determination has been approved by NMED or the generator/storage site has completed the required AK elements in accordance with Permit Attachment B4 and the applicable representative sampling and analysis requirements in accordance with Permit Attachments B1 and B2, the generator/storage site will complete a Waste Stream Profile Form (WSPF) and Waste Analysis Information Summary. The requirements for the completion of a WSPF and a Waste Analysis Information Summary are defined in Permit Attachment B3, Sections B3-11b(1) and B3-11b(2) respectively.</u></p>	<p>Described the generator/storage sites requirements for compiling an AK record and completing a WSPF and WAIS. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment/Response Matrix.</p>
Introduction and Attachment Highlights	<p>All waste characterization <u>analysis</u> activities specified in this WAP and associated Permit Attachments shall be carried out at generator/storage sites, <u>Permittee approved laboratories</u> and, as applicable, at the WIPP facility in accordance with this WAP. The Permittees will audit generator/storage site waste characterization <u>analysis</u> programs and activities as described in Section B-3.</p>	<p>Clarified that waste analysis activities in the WAP may also occur at Permittee approved laboratories. The justification for this change is provided in Section 1.2.1. of the revised PMR.</p>
Introduction and Attachment Highlights	<p>Waste characterization <u>analysis</u> activities at the generator/storage sites include the following, although not all these techniques will be used on each container, as discussed in Section B-3:</p> <ul style="list-style-type: none"> • Radiography, which is an x-ray technique to determine physical contents of containers • Visual examination of opened containers as an alternative way to determine their physical contents or to verify Radiography results 	<p>Clarified the waste analysis techniques that must be performed in accordance with requirements of the HWFP. Justification for this change is provided in Sections 1.2.1., 1.2.2., and 1.2.3. of the revised PMR</p>

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Introduction and Attachment Highlights	<p>Once the required waste characterization analysis is complete, the generator/storage site will complete a Waste Stream Profile Form (WSPF) to document the results of their characterization waste analysis activities (Section B-1d). The WSPF and the Characterization Waste Analysis Information Summary for the waste stream resulting from waste characterization analysis activities shall be transmitted to the Permittees, reviewed for completeness, and screened for acceptance prior to loading any TRU mixed waste into the Contact Handled Packaging at the generator facility, as described in Section B-4 and Permit Attachment B7 including determining that there are no ignitable, corrosive, or reactive waste and the assigned EPA hazardous waste numbers are allowed for storage and disposal by the HWFP (Table B-8).</p>	<p>Described requirements for Permittees review and WSPF approval process. Refers reader to Attachment B7 for details on WSPF review process, including the determination that there is no ignitable, corrosive, or reactive waste, then only acceptable HWNs are applied to the waste stream. The justification for this change is provided in Section 1.2.2. of the revised PMR.</p>
Introduction and Attachment Highlights	<p>The review and approval process will assure that the submitted waste analysis information is sufficient to meet the Data Quality Objectives (DQOs) for AK in Section B-4a(1) and allow the Permittees to demonstrate compliance with the waste analysis requirements of the HWFP. Only TRU mixed waste and TRU waste that has been characterized analyzed in accordance with this WAP and that meets the TSDF-WAC specified in this Permit will be accepted at the WIPP facility for placed into permitted storage or disposed of at WIPP disposal in a permitted Underground Hazardous Waste Disposal Unit (HWDU).</p>	<p>Clarified the intent of the WSPF review and approval process. Clarified that only waste meeting the TSDF-WAC will be placed into permitted storage or disposal. The justification for this change is provided in Section 1.2.2. of the revised PMR.</p>
Introduction and Attachment Highlights	<p>The Permittees will provide NMED copies of the approved WSPF and accompanying Waste Analysis Information Summary. Upon notification of approval of the WSPF by the Permittees, the generator/storage site may be authorized to ship waste to WIPP.</p>	<p>To describe the necessary information which must be provided by the Permittees when requesting an AK Sufficiency Determination from NMED.</p>
Introduction and Attachment Highlights	<p>The Permittees will examine a representative subpopulation of each waste stream shipment prior to disposal as described in Permit Attachment B7. The Permittees will use radiography, visual examination (VE), or review of VE records (e.g., VE data sheets or packaging logs) to examine 7 percent of each waste stream shipment to assure that the waste does not contain ignitable, corrosive, or reactive waste. Waste examination will be performed by the Permittees either off-site (e.g., at the generator/storage site) or on-site at WIPP.</p>	<p>Clarified the Permittees activities relative to examining the waste to assure that it contains no ignitable, reactive or corrosive waste. Provided the waste examination rate and that this activity may occur off-site or on-site at WIPP. The justification for this change is provided in Section 1.2.2. of the revised PMR.</p>

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B-1a	If acceptable knowledge for retrievably stored waste does not comply with these requirements (e.g., heterogeneous Debris Waste in Summary Category S5000), the Permittees will reexamine (and characterize) the waste in the same manner as newly generated waste.	Removed the requirement that retrievably stored waste with insufficient AK be examined in the same manner as newly generated waste. Regardless of whether a waste is retrievably stored or newly generated, generator/storage sites are required to compile a complete AK record including delineation of waste streams, identification of prohibited items and assignment of EPA hazardous waste numbers.
B-1a	All of the waste within a waste stream may not be available for sampling and analysis <u>waste analysis</u> at one time. In these instances, generator/storage sites may divide waste streams into waste stream lots based on staging, transportation, or handling issues. Characterization activities shall then be undertaken on a waste stream lot basis. A WSPF need not be submitted for subsequent waste stream lots unless warranted by the characterization information. <u>Permit Attachment B2 addresses the requirements for the methods used for waste analysis of waste streams as they are generated or retrieved.</u>	Editorial to refer reader to Attachment B2 for retrievably stored and newly generated sampling methods.
B-1b	Once a waste stream has been delineated, generator/storage sites will assign a Waste Matrix Code to the waste stream based on the physical form of the waste. Waste streams are then assigned to one of three broad Summary Category Groups; S3000-Homogeneous Solids, S4000-Soils/Gravel, and S5000-Debris Wastes. These Summary Category Groups are <u>may be</u> used to determine further characterization <u>waste analysis</u> requirements.	Added “may be ” because additional waste analysis may not be required if AK is sufficient, regardless of Summary Category Group. The justification for this change is provided in Section 1.2.1. of the revised PMR.

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B-1c	<p>The following TRU mixed waste are prohibited <u>from storage or disposal</u> at the WIPP facility:</p> <ul style="list-style-type: none"> • RH TRU mixed waste (waste with a surface dose rate of 200 millirem per hour or greater) • any waste container that does not have VOC concentration values reported for the headspace 	<p>Clarified the types of TRU mixed waste prohibited from permitted storage or disposal at WIPP. Clarification added so that facility would not be in violation of HWFP if these types of nonconforming waste were discovered during waste examination at WIPP. Removed prohibition on RH TRU mixed waste. The justification for this change is provided in Sections 1.1., 1.2.2. and 1.3 of the revised PMR.</p>
B-1c	<ul style="list-style-type: none"> • any waste container <u>from a waste stream (or waste stream lot)</u> which has not undergone either radiographic or visual examination <u>of a statistically representative subpopulation of the waste pursuant to provisions in Permit Attachment B7, Section B7-1b(4)</u> 	<p>Clarified that waste is prohibited from storage or disposal until the waste stream or lot has been examined per the activities in Permit Attachment B7. The justification for this change is provided in Section 1.2.2. of the revised PMR.</p>
B-1c	<p>Before accepting <u>storing or disposing of</u> a container holding TRU mixed waste, the Permittees will ensure through <u>examine each waste stream shipment to assure that the waste does not contain ignitable, corrosive, or reactive waste and the assigned EPA hazardous waste numbers are allowed for storage and disposal by the HWFP.</u> audit and as part of their Permittee-level data reviews (Section B3-10c), that generator/storage sites examine the <u>Waste examination will be performed radiography, or visual examination data records on 7 percent of each waste stream shipped equating to examination of at least one of fourteen containers in each waste stream shipment. If fewer than fourteen containers in a waste stream shipment are received, one container will be examined</u> (Section B-4b <u>7-1b(4)</u>)</p>	<p>Clarified that Permittees will examine waste before storage or disposal at WIPP. Waste examination is part of the Permittee Level waste screening and verification now discussed in Permit Attachment B7. Identified the rate at which waste will be examined. The justification for this change is provided in Section 1.2.2. of the revised PMR.</p>

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B1-c	<p>to verify that the container holds no unvented compressed gas containers and that residual liquid does not exceed 1 percent volume in any payload container. If discrepancies or inconsistencies are detected during the data review, the generator/storage site will review the radiography video tape or visual examination tape to verify that the observed physical form of the waste is consistent with the waste stream description provided by the generator and to ensure that no prohibited items are present in the waste. Radiography tapes will be selected randomly from at least one percent of containers received at WIPP and will be reviewed and compared to radiographic data forms.</p>	<p>Removed the mandated requirement that generator/storage sites examine all containers through radiography or VE to identify physical form and verify the absence of prohibited items. Under the revised PMR, generator/storage sites are not required to confirm verify and examine AK through radiography, VE, HSGSA or SSA. The generator/storage sites will continue to perform representative HSGSA and SSA as part of waste analysis to resolve assignment of EPA HWNs when NMED has not approved an AK Sufficiency Determination or the Permittees have not requested approval of an AK Sufficiency Determination request. The Permittees will examine a representative subpopulation of waste prior to storage or disposal using radiography or VE as described in Permit Attachment B7. The revised PMR also requires compilation of a complete AK record, including 100 percent examination through radiography or VE when the AK does not clearly substantiate the absence of prohibited items.</p> <p>Removed requirement that Permittees examine radiography tapes for at least one percent of containers received at WIPP because generator/storage sites are no longer required to confirm verify and examine AK using radiography or VE and the Permittees will examine a representative subpopulation of waste prior to storage or disposal with radiography , VE or examination of VE record. The justification for this change is provided in Sections 1.2.1, 1.2.2. and 1.3. of the revised PMR and Appendix I of the Section 311 NOD Comment/Response Matrix.</p>
B-1c	<p>(Note that for radiography tapes containing classified information, review of radiography tapes will be conducted by the Permittees at a secure location other than WIPP. The records generated from the Permittee's review of radiography tapes will be sent to WIPP for inclusion in the Operating Record, while the original tape will be maintained at another secure location.) All personnel who review radiography video tapes will be trained to the same standard as radiography. Section B-47-1b includes a description of the waste <u>screening</u>, verification, and examination processes, that the Permittees will conduct prior to receiving <u>storing or disposing of</u> a shipment at the WIPP facility.</p>	<p>Removed requirements relative to Permittees review of generator/storage sites radiography tapes because Permittees will no longer perform this function as they will examine waste prior to storage or disposal. Provided reference in Attachment B7 where details on the Permittees waste approval and acceptance requirements are provided. The justification for this change is provided in Section 1.2.2. of the revised PMR.</p>

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B-1c	To ensure the integrity of the WIPP facility, waste streams identified to contain incompatible materials or materials incompatible with waste containers cannot be shipped <u>stored or disposed of at</u> to WIPP unless they are treated to remove the incompatibility. Only those waste streams that are compatible or have been treated to remove incompatibilities will be shipped to WIPP.	Clarified that incompatible material are prohibited from storage or disposal. This is necessary so that the Permittees will not be in violation of the HWFP should incompatibles be discovered during waste examination at WIPP, in which case they would be managed appropriately. The justification for this change is provided in Section 1.2.2. of the revised PMR.
B-1c	The VOC concentrations in the headspace of waste containers have been limited to those which when averaged on a room basis, will ensure compliance with the performance standards. These limits are presented in Table B-2 as maximum allowable VOC room-averaged headspace concentration limits. There are no maximum allowable headspace gas concentration limits for individual containers as some containers can exceed these values as long as container headspace averages in a disposal room do not.	Removed language regarding VOC concentrations in the headspace gas that were used to assure compliance with disposal room performance standards. Under the revised PMR, the Permittees will directly monitor the disposal rooms to evaluate compliance with the room-based limits. The justification for this change is provided in Sections 1.2.2. and 1.3. of the revised PMR.
B-1d	Every waste stream shipped to WIPP shall be preceded by <u>an approved</u> WSPF (Figure B-1) <u>and a Waste Analysis Information Summary</u> . The required WSPF information and the <u>Waste Analysis Characterization</u> Information Summary elements are found in Section B3- 112b(1) and Section <u>B3-112b(2)</u> .	Editorial to clarify that the Permittees will not dispose of any waste prior to assuring that complete information has been provided on the WSPF, and approving the WSPF.
B-1d	The Permittees will submit <u>provide</u> completed WSPFs, <u>to</u> NMED prior to waste stream shipment.	Editorial.
B-1d	As stated in the Introduction of this WAP, any time the Permittees request additional <u>detailed</u> information concerning a waste stream, the generator/storage site will provide a Waste Stream Characterization <u>Waste Analysis</u> Package (Section B3- 112b(23)). The option for the Permittees to request additional information ensures that the waste being offered for disposal is adequately characterized <u>analyzed</u> and accurately described on the WSPF.	Editorial.
B-1e	Because derived wastes can contain only those RCRA-regulated materials present in the waste from which they were derived, no additional characterization <u>waste analysis or examination</u> of the derived waste is required for disposal purposes.	Clarified that additional waste analysis or waste examination is not required for derived waste prior to disposal. The Permittees waste examination process applies to waste received from off-site facilities. The justification for this change is provided in Section 1.2.2. of the revised PMR.

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B-2	<p>B-2 <u>Waste Analysis Program Requirements and Waste Analysis Parameters</u></p> <p><u>The Permittees shall require the sites to provide the procedure(s) which specify their waste analysis program requirements. The Permittees will evaluate the procedures during review and approval of the WSPF. Sites must notify the Permittees and obtain approval prior to making data-affecting modifications to procedures. Waste analysis program procedures shall address the following minimum elements:</u></p>	<p>Editorial to move these Program-Level requirements from Permit Attachment B4 where they were inappropriately included in AK. The Permittees will review and approve the program procedures during profile review instead of during audits.</p>
B-2	<ul style="list-style-type: none"> ● <u>Waste certification procedures for retrievably stored and newly generated wastes to be sent to the WIPP facility</u> ● <u>Procedures describing management controls used to assure prohibited items are documented and managed. These will include procedures for performing radiography, VE, or treatment, if these methods are used to assure prohibited items are not present in the waste prior to shipment of the waste to WIPP.</u> 	<p>Editorial to move these Program-Level requirements from Permit Attachment B4 where they were inappropriately included in AK. The Permittees will review and approve the program procedures during profile review instead of during audits.</p>
B-2	<ul style="list-style-type: none"> ● <u>Procedures that assure unacceptable wastes (e.g., reactive, ignitable, corrosive) are identified and segregated from TRU mixed waste populations sent to WIPP. These will include procedures for performing radiography, VE, or treatment, if these methods are used to assure unacceptable wastes are not present prior to shipment of the waste to WIPP.</u> 	<p>Editorial to move these Program-Level requirements from Permit Attachment B4 where they were inappropriately included in AK. The Permittees will review and approve the program procedures during profile review instead of during audits.</p>
B-2	<ul style="list-style-type: none"> ● <u>Procedures used to verify packaging configurations to determine the correct drum age criteria (DAC) if headspace gas sampling and analysis is used to collect waste analysis information per Section B1-1a(1) of the WAP.</u> 	<p>Editorial to move these Program-Level requirements from Permit Attachment B4 where they were inappropriately included in AK. The Permittees will review and approve the program procedures during profile review instead of during audits.</p>

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B-2	<ul style="list-style-type: none"> ● <u>Identify the organization(s) responsible for compliance with administrative controls and waste certification procedures.</u> ● <u>Identify the oversight procedures and frequency of actions to verify compliance with administrative controls and waste certification procedures.</u> ● <u>Develop training specific to administrative control and waste certification procedures.</u> 	<p>Editorial to move these Program-Level requirements from Permit Attachment B4 where they were inappropriately included in AK. The Permittees will review and approve the program procedures during profile review instead of during audits.</p>
B-2	<ul style="list-style-type: none"> ● <u>Assure that personnel may stop work if noncompliance with administrative controls or waste certification procedures is identified.</u> ● <u>Develop a nonconformance process that complies with the requirements in Section B3 of the WAP to document and establish corrective actions.</u> ● <u>As part of the corrective action process, assess the potential time frame of the noncompliance, the potentially affected waste population(s), and the reassessment and recertification of those wastes.</u> 	<p>Moved these Program-Level requirements from Permit Attachment B4 where they were inappropriately included in AK. The Permittees will review and approve the program procedures during profile review instead of during audits.</p>
B-2	<ul style="list-style-type: none"> ● <u>A listing of all approved hazardous waste numbers which are acceptable at WIPP are included in the Table B-8.</u> 	<p>Editorial to move these Program-Level requirements from Permit Attachment B4 where they were inappropriately included in AK. The Permittees will review and approve the program procedures during profile review instead of during audits</p>

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B-2	<p><u>For those waste streams that are not amenable to radiography (e.g., RH TRU mixed waste, direct loaded ten-drum overpacks (TDOPs)) for waste examination by the Permittees as described in Permit Attachment B7, generator/storage site VE data may be used for waste acceptance. In those cases, the Permittees will review the generator/storage site VE procedures to assure that data sufficient for the Permittees waste acceptance activities as described in Permit Attachment B7 will be obtained and the procedures meet the minimum requirements for visual examination specified in Permit Attachment B1, Section B1-3.</u></p>	<p>Clarified the Permittees review of generator/storage sites VE procedures when the generator/storage is performing VE that may be used by the Permittees for waste examination as described in Permit Attachment B7. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.</p>
B-2	<p>The following waste analysis parameters shall be characterized at <u>analyzed by</u> the generator/storage sites:</p>	<p>Editorial to clarify the waste analysis parameters for generator/storage sites.</p>
B-2	<ul style="list-style-type: none"> ● <u>Determination if TRU mixed waste streams comply with the applicable provisions of the TSDF-WAC</u> ● <u>Determination whether TRU mixed wastes exhibit a hazardous characteristic (20.4.1.200 NMAC, incorporating 40 CFR §261 Subpart C)</u> ● <u>Determination whether TRU mixed wastes are listed (20.4.1.200 NMAC, incorporating 40 CFR §261 Subpart D)</u> ● <u>Estimation of waste material parameter weights</u> 	<p>Clarified the waste analysis parameters necessary under the revised PMR. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR and Appendix I of the Section 311 NOD Comment/Response Matrix.</p>

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B-2	<ul style="list-style-type: none"> • Confirmation of physical form and exclusion of prohibited items specified in Section B-1c • Toxicity characteristic contaminants listed in 20.4.1.200 NMAC (incorporating 40 CFR, §261.24), Table 1 (excluding pesticides), as specified in Permit Attachment O. • F-listed and P-listed solvents or waste, as approved (See Table B-10) found in 20.4.1.200 NMAC (incorporating 40 CFR §261.31) • Hazardous constituents included in 20.4.1.200 NMAC (incorporating 40 CFR §261) Appendix VIII as specified in Tables B-1, B-3 and B-4, as well as any other hazardous constituent identified through acceptable knowledge. 	<p>Clarified the waste analysis parameters necessary under the revised PMR. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR and Appendix I of the Section 311 NOD Comment/Response Matrix.</p>
B-3	<p>B-3 <u>Characterization Waste Analysis Methods</u></p> <p>The <u>characterization waste analysis</u> techniques used by generator/storage sites <u>may</u> include, <u>as necessary</u>, acceptable knowledge, <u>which incorporates confirmation</u> by headspace-gas sampling and analysis, <u>radiography</u>, and homogeneous waste sampling and analysis. <u>All confirmation characterization activities are</u> <u>The compilation of an acceptable knowledge record is</u> performed in accordance with the WAP. Table B-65 provides a summary of the <u>characterization waste analysis</u> requirements for TRU mixed waste.</p>	<p>Clarified the waste analysis techniques that must be performed in accordance with methods in the HWFP and the AK compilation techniques generator/storage sites use. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR and Appendix I of the Section 311 NOD Comment/Response Matrix.</p>

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B-3	<p>TRU mixed waste may be characterized in lots (Section B-1a) and/or batches. A sampling batch can be up to 20 samples (excluding field QC samples), all of which shall be collected within 14 days of the first sample in the batch. An analytical batch can be up to 20 samples (excluding laboratory QC samples), all of which shall be received by the laboratory within 14 days of the validated time of sample receipt of the first sample in the batch. For on-line integrated headspace-gas sampling/analytical systems, samples will be collected within a 12-hour period using the same on-line integrated sampling/analysis system. The analytical requirements are specified by the analytical method being used in the on-line system (e.g., FTIR, GC/MS). Refer to Permit Attachment B3 for additional clarification regarding the expected contents of Batch Data Reports.</p>	<p>Editorial to remove language that is redundant with what is in Permit Attachment B3.</p>
B-3a(1)	<p>B-3a(1) <u>Headspace Gas Sampling and Analysis</u> <u>Representative headspace gas sampling and analysis shall be used by generator/storage sites to determine the types and concentrations of VOCs in the void volume of randomly selected waste containers in order to resolve the assignment of EPA hazardous waste numbers for those debris waste streams for which an AK Sufficiency Determination has not been approved by NMED or for which the Permittees do not request approval of an AK Sufficiency Determination request</u></p>	<p>Clarified use of HSGSA. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment/Response Matrix.</p>
B-3a(1)	<p>Headspace-gas samples are used to determine the types and concentrations of VOCs in the void volume of waste containers. Measured headspace VOC concentrations in waste containers received at the WIPP facility will be compared routinely and in accordance with requirements of Permit Attachment N to ensure that, on an annual basis, there are no associated adverse worker or public-health impacts. In addition, VOC constituents will be compared to those assigned by acceptable knowledge, and the Permittees will assign hazardous waste codes, as warranted. This comparison may include an analysis of radiolytically derived VOCs.</p>	<p>Removed interface between HSGSA and VOC monitoring requirements in Attachment N. Under the revised PMR, the Permittees will directly monitor disposal rooms to assess compliance with room standards. The justification for this change is provided in Section 1.3. of the revised PMR.</p>
B-3a(1)	<p>The Permittees <u>generator/storage sites</u> may also consider radiolysis <u>and packaging materials</u> when assessing the presence of listed waste <u>hazardous constituents in the headspace gas results</u>, and whether radiolysis would generate wastes which exhibit the toxicity characteristic. Refer to Permit Attachment B4 for additional clarification regarding hazardous waste code <u>number</u> assignment and headspace gas results. <u>The methods for random selection of containers for headspace gas sampling and analysis are specified in Permit Attachment B2.</u></p>	<p>Clarified that requirements for considering radiolysis-derived constituents are part of a generator/storage sites' waste analysis requirements. Provided reference to random container selection methods. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment/Response Matrix.</p>

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Section	Change	Explanation of Change
B-3a(1)	<p>With the exception of qualifying Los Alamos National Laboratory (LANL) sealed sources waste containers, every TRU mixed waste container or statistically selected containers from waste streams that meet the conditions for reduced headspace gas sampling listed in this section will be sampled and analyzed to determine the concentrations of VOCs (presented in Table B-3) in headspace gases. LANL sealed sources waste containers that meet the conditions specified in B-3a(1)(iii) must be assigned VOC concentration values in accordance with Section B-3a(1)(iii).</p>	<p>Removed language specific to LANL sealed sources and developing a VOC source term. Under the revised PMR, disposal rooms will be monitored directly for VOCs so the LANL source term does not require separate development. The AK requirements for LANL sealed sources, along with the provision of the acceptability of their AK, is provided in Permit Attachment B4. The justification for this change is provided in Sections 1.2.1 and 1.3. of the revised PMR.</p>
B-3a(1)	<p>If composite samples are used, containers used in the composite sample must be from the same waste stream with no more than 20 containers being included in a single composite sample. Sampling protocols, equipment, and QA/QC methods for headspace gas sampling are provided in Permit Attachment B4.</p>	<p>Removed language specific to LANL sealed sources and developing a VOC source term. Under the revised PMR, disposal rooms will be monitored directly for VOCs so the LANL source term does not require separate development. The AK requirements for LANL sealed sources, along with the provision of the acceptability of their AK, is provided in Permit Attachment B4. The justification for this change is provided in Sections 1.2.1 and 1.3. of the revised PMR.</p>
B-3a(1)(i)	<p>B-3a(1)(i) Reduced Sampling Requirements for Homogeneous Solid or Soil/Gravel Waste Streams with no VOC-Related Hazardous Waste Codes Numbers</p> <p>Headspace gas sampling of homogeneous solid and soil/gravel wastes that have no VOC-related hazardous waste codes numbers assigned may qualify for reduced headspace sampling if they meet the following criteria:</p> <ul style="list-style-type: none"> ● The waste stream or waste stream lot must consist of more than 10 containers. 	<p>Removed language specific to reduced [HSGSA] sampling requirements for homogeneous solids and soils/gravel waste streams with no VOC-related HWNS. In the revised PMR, HSGSA is not required for homogeneous solids or soil/gravel waste streams; it is only required representatively for debris waste streams. Representative solid sampling and analysis (SSA) is required for homogeneous solids and soils/gravel waste streams to resolve assignment of EPA HWNs in waste streams where an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination. VOC concentrations will be monitored directly in disposal rooms to assess compliance with disposal room limits. The justification for this change is provided in Sections 1.2.1 and 1.3. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-3a(1)(i)	<ul style="list-style-type: none"> ● The waste stream must be a homogeneous solid or soil/gravel waste stream that has no VOC-related hazardous waste codes numbers assigned to it. ● The results of the solid sampling and analysis must confirm that no VOC-related hazardous waste codes numbers should be assigned to the waste stream. 	<p>Removed language specific to reduced [HSGSA] sampling requirements for homogeneous solids and soils/gravel waste streams with no VOC-related HWNS. In the revised PMR, HSGSA is not required for homogeneous solids or soil/gravel waste streams; it is only required representatively for debris waste streams. Representative solid sampling and analysis (SSA) is required for homogeneous solids and soils/gravel waste streams to resolve assignment of EPA HWNs in waste streams where an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination. VOC concentrations will be monitored directly in disposal rooms to assess compliance with disposal room limits. The justification for this change is provided in Sections 1.2.1 and 1.3. of the revised PMR.</p>
B-3a(1)(i)	<p>If a waste stream meets these conditions for reduced headspace gas sampling, generator/storage sites may choose to randomly select containers for headspace gas sampling and analysis using the statistical approach in Permit Attachment B2, Section B2-2b.</p>	<p>Removed language specific to reduced [HSGSA] sampling requirements for homogeneous solids and soils/gravel waste streams with no VOC-related HWNS. In the revised PMR, HSGSA is not required for homogeneous solids or soil/gravel waste streams; it is only required representatively for debris waste streams. Representative solid sampling and analysis (SSA) is required for homogeneous solids and soils/gravel waste streams to resolve assignment of EPA HWNs in waste streams where an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination. VOC concentrations will be monitored directly in disposal rooms to assess compliance with disposal room limits. The justification for this change is provided in Sections 1.2.1 and 1.3. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-3a(1)(ii)	<p>B-3a(1)(ii) Reduced Sampling Requirements for Thermally Treated Waste Streams</p> <p>Headspace gas sampling of wastes that have undergone high-temperature thermal processes may qualify for reduced headspace sampling if they meet the following criteria:</p> <ul style="list-style-type: none"> • The waste stream or waste stream lot must consist of more than 10 containers. 	<p>Removed language specific to reduced [HSGSA] sampling requirements for thermally treated waste streams. In the revised PMR, HSGSA is not required for homogeneous solids or soil/gravel waste streams, only representatively for debris waste streams. Representative solid sampling and analysis (SSA) is required for homogeneous solids and soils/gravel waste streams to resolve assignment of EPA HWNs in waste streams where an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination. VOC concentrations will be monitored directly in disposal rooms to assess compliance with disposal room limits. The justification for this change is provided in Sections 1.2.1 and 1.3. of the revised PMR.</p>
B-3a(1)(ii)	<ul style="list-style-type: none"> • The waste stream must have either been generated using a high-temperature thermal process or been subjected to a high-temperature thermal process after generation that resulted in the reduction of matrix-related VOCs in the headspace to concentrations below the PRLs in Permit Attachment B3, Table B3-2. • The site must have documentation demonstrating that high-temperature thermal processes were used. 	<p>Removed language specific to reduced [HSGSA] sampling requirements for thermally treated waste streams. In the revised PMR, HSGSA is not required for homogeneous solids or soil/gravel waste streams, only representatively for debris waste streams. Representative solid sampling and analysis (SSA) is required for homogeneous solids and soils/gravel waste streams to resolve assignment of EPA HWNs in waste streams where an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination. VOC concentrations will be monitored directly in disposal rooms to assess compliance with disposal room limits. The justification for this change is provided in Sections 1.2.1 and 1.3. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-3a(1)(ii)	<p>If a waste stream meets these conditions for reduced headspace gas sampling, generator/storage sites may choose to randomly select containers for headspace gas sampling and analysis using the statistical approach in Permit Attachment B2, Section B2-2b</p>	<p>Removed language specific to reduced [HSGSA] sampling requirements for thermally treated waste streams. In the revised PMR, HSGSA is not required for homogeneous solids or soil/gravel waste streams, only representatively for debris waste streams. Representative solid sampling and analysis (SSA) is required for homogeneous solids and soils/gravel waste streams to resolve assignment of EPA HWNs in waste streams where an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination. VOC concentrations will be monitored directly in disposal rooms to assess compliance with disposal room limits. The justification for this change is provided in Sections 1.2.1 and 1.3. of the revised PMR.</p>
B-3a(i)(iii)	<p>B-3a(1)(iii) Sampling Requirements for Waste Containers of LANL Sealed Sources Waste Streams Headspace gas sampling and analysis of a waste container containing a pipe overpack component belonging to a LANL sealed sources waste stream is not required if compliance with the following criteria has been determined and documented by LANL for its individual contents:</p> <ul style="list-style-type: none"> • All LANL sealed sources will be characterized as newly generated waste. 	<p>Removed language specific to LANL sealed sources and developing a VOC source term. Under the revised PMR, disposal rooms will be monitored directly for VOCs so the LANL source term does not require separate development. The AK requirements for LANL sealed sources, along with the provision of the acceptability of their AK, is provided in Permit Attachment B4. The justification for this change is provided in Sections 1.2.1 and 1.3. of the revised PMR.</p>
B-3a(i)(iii)	<ul style="list-style-type: none"> • The waste container contents meet the definition of sealed sources per 10 CFR §30.4 and 10 CFR §835.2 (effective January 1, 2004), evidence of which must be assembled as part of the AK documentation. • Sealed sources must be the only non-packaging items in the waste container, which must be verified using the VE technique at the time of packaging. 	<p>Removed language specific to LANL sealed sources and developing a VOC source term. Under the revised PMR, disposal rooms will be monitored directly for VOCs so the LANL source term does not require separate development. The AK requirements for LANL sealed sources, along with the provision of the acceptability of their AK, is provided in Permit Attachment B4. The justification for this change is provided in Sections 1.2.1 and 1.3. of the revised PMR.</p>

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B-3a(i)(iii)	<ul style="list-style-type: none"> • The sealed sources must be U.S. Department of Transportation Special Form Class 7 (Radioactive) Material per 49 CFR §173.403 (effective October 1, 2003), the certification of which must be assembled as part of the AK documentation. • The integrity of each sealed source must be validated by documented contamination survey results to meet the requirements of 10 CFR §34.27 (effective January 1, 2004), which must be assembled as part of the AK documentation. 	<p>Removed language specific to LANL sealed sources and developing a VOC source term. Under the revised PMR, disposal rooms will be monitored directly for VOCs so the LANL source term does not require separate development. The AK requirements for LANL sealed sources, along with the provision of the acceptability of their AK, is provided in Permit Attachment B4. The justification for this change is provided in Sections 1.2.1 and 1.3. of the revised PMR.</p>
B-3a(1)(iii)	<ul style="list-style-type: none"> • Each sealed source must be, or be contained in, a rigid sealed container less than or equal to 4 liters in size, which must be verified using the VE technique at the time of packaging. • AK documentation does not indicate the use of VOCs or VOC-bearing materials as constituents of the sealed sources. 	<p>Removed language specific to LANL sealed sources and developing a VOC source term. Under the revised PMR, disposal rooms will be monitored directly for VOCs so the LANL source term does not require separate development. The AK requirements for LANL sealed sources, along with the provision of the acceptability of their AK, is provided in Permit Attachment B4. The justification for this change is provided in Sections 1.2.1 and 1.3. of the revised PMR.</p>
B-3a(1)(iii)	<ul style="list-style-type: none"> • The outer casing of each sealed source must be of a non-VOC bearing material, which must be verified using the VE technique at the time of packaging. <p>A packaging VOC source term for waste containers meeting these criteria must be established on a waste-stream basis for each headspace target analyte listed in Table B-3 as follows:</p>	<p>Removed language specific to LANL sealed sources and developing a VOC source term. Under the revised PMR, disposal rooms will be monitored directly for VOCs so the LANL source term does not require separate development. The AK requirements for LANL sealed sources, along with the provision of the acceptability of their AK, is provided in Permit Attachment B4. The justification for this change is provided in Sections 1.2.1 and 1.3. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-3a(1)(iii)	<ul style="list-style-type: none"> • Samples must be collected from the headspace of a minimum of five containers, each containing only packaging materials typical and representative of the packaging materials used in containers belonging to the LANL sealed sources waste stream under consideration. In no case is this sampling required to occur on containers that hold sealed sources. Each headspace gas sample must be analyzed for the target analytes listed in Table B-3. Using the statistical approach in Permit Attachment B2, Section B2-3b, VOC concentration values shall be calculated. For each result that is nondetectable, the value calculated as one-half the method detection limit shall be used. For all detectable results, the mean values shall be used. The calculated VOC concentration values shall be assigned to each waste container meeting the criteria of this section. 	<p>Removed language specific to LANL sealed sources and developing a VOC source term. Under the revised PMR, disposal rooms will be monitored directly for VOCs so the LANL source term does not require separate development. The AK requirements for LANL sealed sources, along with the provision of the acceptability of their AK, is provided in Permit Attachment B4. The justification for this change is provided in Sections 1.2.1 and 1.3. of the revised PMR.</p>
B-3a(1)(iii)	<ul style="list-style-type: none"> • Sampling and analysis must be managed in accordance with this Permit using an approved LANL headspace gas sampling and analysis program. • The VOC source term also must be re-evaluated if any significant change (e.g., change in material or change in manufacturer) is made to the packaging materials used in the sealed sources waste stream. <p>If a waste container meets these criteria, concentrations for the headspace gas target analytes (Table B-3) must be assigned based on the VOC source term developed as described above. The assignment of VOC concentration values for qualifying waste containers belonging to LANL sealed sources waste streams must be managed as documented and approved in the LANL QAPJP.</p>	<p>Removed language specific to LANL sealed sources and developing a VOC source term. Under the revised PMR, disposal rooms will be monitored directly for VOCs so the LANL source term does not require separate development. The AK requirements for LANL sealed sources, along with the provision of the acceptability of their AK, is provided in Permit Attachment B4. The justification for this change is provided in Sections 1.2.1 and 1.3. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-3a(2)	<p>B-3a(2) <u>Homogeneous and Soil/Gravel Waste Sampling and Analysis</u></p> <p><u>Representative homogeneous and soil/gravel waste sampling and analysis shall be used by generator/storage sites to resolve the assignment of EPA hazardous waste numbers for homogeneous and soil/gravel waste streams for those waste streams for which an AK Sufficiency Determination has not been approved by NMED or for which the Permittees do not request approval of an AK Sufficiency Determination.</u> Sampling of homogeneous and soil/gravel wastes shall result in the collection of a sample that is used to confirm <u>resolve the assignment of</u> hazardous waste code <u>numbers</u> assignment by acceptable knowledge. Sampling is accomplished through core <u>coring</u> or other EPA approved sampling, which is described in Permit Attachment B1.</p>	<p>Clarified circumstances under which representative homogeneous sampling and analysis is used for resolution of EPA hazardous waste numbers. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment/Response Matrix.</p>
B-3a(3)	<p><u>The Permittees will ensure that generator/storage sites conduct analyses using laboratories that are qualified through participation in the Performance Demonstration Program (DOE, 1995c, d). Required QAOs are specified in Permit Attachment B3. In addition, methods and supporting performance data demonstrating QAO compliance shall be ensured by the Permittees during the annual certification audit of the laboratories.</u></p>	<p><u>References are obsolete. Current versions of the PDP program description are maintained in the project office.</u></p>
B-3b	<p>Acceptable knowledge (AK) is used in TRU mixed waste characterization <u>analysis</u> activities in three <u>five</u> ways:</p> <ul style="list-style-type: none"> • To delineate TRU mixed waste streams • <u>To assess if TRU mixed waste complies with the TSDF-WAC</u> • To assess whether TRU mixed heterogeneous debris wastes exhibit a toxicity <u>hazardous</u> characteristic (20.4.1.200 NMAC, incorporating 40 CFR §26124 <u>Subpart C</u>) • To assess whether TRU mixed wastes are listed (20.4.1.200 NMAC, incorporating 40 CFR §26131 <u>Subpart D</u>) • <u>To estimate waste material parameter weights</u> 	<p>Identified two additional ways AK is used during waste analysis of TRU mixed waste. Added additional items to assure that generator/storage sites will compile a complete AK record that demonstrates a waste stream compliance with the TSDF-WAC and to estimate material parameter weights, a function formerly performed through radiography or VE. Corrected language for consistency with NMAC, provided appropriate references. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.</p>

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B-3b	Acceptable knowledge is discussed in detail in Permit Attachment B4, which outlines the minimum set of requirements <u>and DQOs</u> which shall be met by the generator/storage sites in order to use acceptable knowledge. In addition, Section <u>B7-1a(1)</u> B-4b(+) of this permit attachment describes the verification of acceptable knowledge through sampling and analysis and the Permittees' Audit and Surveillance Program.	Referenced Data Quality Objectives (DQOs) for AK, removed requirement for verification of AK through sampling and analysis and audit of that verification. However, generator/storage sites are required to perform representative HSGSA and SSA for resolution of EPA HWNs when NMED has not approved an AK Sufficiency Determination or the Permittees have not requested approval of an AK Sufficiency Determination request. The justification for this change is provided in Sections 1.2.1., 1.2.2., and 1.2.3. of the revised PMR.
B-3c	<u>Visual examination (VE) constitutes opening a container and physically examining its contents. Generator/storage sites shall perform radiography or VE on 100 percent of containers in waste streams where acceptable knowledge does not substantiate the absence of prohibited items. Radiography or VE used by generator/storage sites is not required to be performed in accordance with methods in the HWFP</u> Radiography and/or visual examination will be used to examine every waste container to verify its physical form. These techniques can detect liquid wastes and containerized gases, which are prohibited for WIPP disposal.	Clarified that generator/storage sites must perform radiography or VE for all containers where AK does not clearly substantiate the absence of prohibited items. Clarified that generator/storage sites need not perform radiography or VE for waste analysis in accordance with methods in the HWFP. Generator/storage sites will be required to perform VE in accordance with the modified VE method in Permit Attachment B1 then the Permittees will use VE records to examine waste prior to storage or disposal. Removed language relative to generator/storage sites performing radiography or VE to confirm verify and examine physical form because under the revised PMR, sites are required to submit their methods for identifying physical form and verifying the absence of prohibited items as part of the Waste Analysis Information Summary. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.
B-3c	The prohibition of liquids and containerized gases prevents the shipment of corrosive, ignitable, or reactive wastes. Radiography and/or VE will also be able to confirm that the physical form of the waste matches its waste stream description (i.e. Homogeneous Solids, Soil/Gravel, or Debris Waste [including uncategorized metals]). If the physical form does not match the waste stream description, the waste will be designated as another waste stream and assigned the preliminary hazardous waste codes associated with that new waste stream assignment.	Removed language relative to generator/storage sites performing radiography or VE to confirm verify and examine physical form because under the revised PMR, sites are required to submit their methods for identifying physical form and verifying the absence of prohibited items as part of the Waste Analysis Information Summary and the Permittees will perform waste examination prior to storage or disposal. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.

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B-3c	<p>That is, if radiography and/or VE indicates that the waste does not match the waste stream description arrived at by acceptable knowledge characterization, a non-conformance report will be completed and the inconsistency will be resolved as specified in Permit Attachment B4. The proper waste stream assignment will be determined (including preparation of a new WSPF), the correct hazardous waste codes will be assigned, and the resolution will be documented. Refer to Permit Attachment B4 for a discussion of acceptable knowledge and its confirmation process.</p>	<p>Removed the discussion that required generator/storage sites to prepare a non-conformance report, resolve inconsistency and develop a new WSPF based on the results of generator/storage site AK confirmation. Non-conformance reporting at the project level is discussed in Permit Attachment B3, Section B3-12. The corrective action process required when discrepancies are identified during Permittee waste examination are discussed in Permit Attachment B7, Section B7-3. Removed the method requirements for detecting liquids using VE because under the revised PMR, the generator/storage sites are not required to perform VE under methods in the HWFP for waste analysis purposes. Generator/storage sites will be required to perform VE in accordance with the modified VE method in Permit Attachment B1 when the Permittee will use VE records to examine waste prior to storage or disposal. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.</p>
B-3c	<p>Generator/storage sites may conduct visual examination of waste containers in lieu of radiography. For generator/storage sites that choose to use visual examination in lieu of radiography, the detection of any liquid waste in non-transparent inner containers, detected from shaking the container, will be handled by assuming that the container is filled with liquid and adding this volume to the total liquid in the payload container (e.g., 55 gallon drum or SWB). The payload container would be rejected and/or repackaged to exclude the container if it is over the TSDF-WAC limits. When radiography is used, or visual examination of transparent containers is performed, if any liquid in inner containers is detected, the volume of liquid shall be added to the total for the payload container.</p>	<p>Removed discussion of generator/storage sites' use of radiography or VE for confirmation of AK. Removed the reference to Permit Attachment B2 because confirmation of radiography through VE has been removed from the referenced attachment. Generator/storage will be required to perform VE in accordance with the modified VE method in Permit Attachment B1 when the Permittee will use VE data to examine waste prior to storage or disposal. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-3c	<p>Radiography, or the equivalent, will be used on the existing/stored waste containers to verify the physical characteristics of the TRU mixed waste correspond with its waste stream identification/waste stream Waste Matrix Code and to identify prohibited items. The results of radiography are verified through visual examination of a statistically selected subpopulation of TRU mixed waste containers in each TRU mixed waste summary category group as specified in Permit Attachment B2.</p>	<p>Removed the method requirements for detecting liquids with VE. Removed discussion of generator/storage sites' use of radiography or VE for confirmation of AK. Removed the reference to Permit Attachment B2 because confirmation of radiography through VE has been removed from the referenced attachment. Generator/storage will be required to perform VE in accordance with the modified VE method in Permit Attachment B1 when the Permittee will use VE data to examine waste prior to storage or disposal. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.</p>
B-3d	<p>The analyses performed will not <u>may</u> differ based on the waste stream, only on <u>and</u> the physical form of the waste (i.e., heterogeneous debris waste cannot be sampled for totals analyses).</p>	<p>Clarified that analysis may differ based on waste streams and physical form to acknowledge variability in waste streams.</p>
B-3d	<p><u>Every TRU mixed waste stream will be assigned hazardous waste codes numbers based upon acceptable knowledge.</u> and the Permittees will confirm these designations using headspace gas (all Summary Category Groups) and solid sampling and analysis (Summary Category Groups S3000 and S4000 only).</p>	<p>Removed requirement that AK be confirmed through HSGSA and SSA. Under the revised PMR, generator/storage sites are not required to confirm AK through radiography, VE, HSGSA or SSA. The generator/storage sites are required to compile an AK record and will continue to perform representative HSGSA and SSA as part of waste analysis to resolve assignment of EPA HWNs for those waste streams for which an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination. The Permittees will examine a representative subpopulation of waste prior to storage or disposal using radiography or VE as described in Permit Attachment B7. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.</p>

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Section	Change	Explanation of Change
B-3d	<p>Radiography and/or VE will be used to verify the physical form of retrievably stored TRU mixed waste. For newly generated waste, physical form and prohibited items will either be verified during packaging. <u>In the Waste Analysis Information Summary for each waste stream, the generator/storage site will be required to document their methods, and the findings from those methods, for determining the physical form of the waste and the presence or absence of prohibited items for both retrievably stored and newly generated waste, using the VE technique) or will be verified after packaging using radiography (or VE in lieu of radiography).</u></p>	<p>Removed language relative to generator/storage sites performing radiography or VE to confirm physical form. Required sites to submit their methods for identifying physical form and verifying the absence of prohibited items as part of the Waste Analysis Information Summary. This applies to both retrievably stored and newly generated waste. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.</p>
B-3d	<p>Generator/storage sites may use either the VE technique or radiography, separately or together, as long as 100% of the containers undergo confirmation of AK. Radiography and/or VE will also be used in conjunction with acceptable knowledge to characterize heterogeneous debris wastes. Radiography and/or VE, and the associated information compiled from acceptable knowledge (e.g., age of the waste, generating process) will be used to determine the RCRA-regulated constituents present in the waste. VE, the VE technique, and/or radiography shall be performed prior to any treatment designed to supercompact waste prior to shipment.</p>	<p>Removed requirement that AK be confirmed through radiography or VE. Under the revised PMR, generator/storage sites are not required to confirm AK through radiography, VE, HSGSA or SSA. The generator/storage sites are required to compile an AK record and will continue to perform representative HSGSA and SSA as part of waste analysis to resolve assignment of EPA HWNs for those waste streams for which an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination. The Permittees will examine a representative subpopulation of waste prior to storage or disposal using radiography or VE as described in Permit Attachment B7. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.</p>

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Section	Change	Explanation of Change
B-3d	<p>With the exception of qualifying LANL sealed sources waste containers, all waste containers (retrievably stored and newly generated) or randomly selected <u>For debris waste streams that do not have a NMED approved AK Sufficiency Determination or for which the Permittees do not request approval of an AK Sufficiency Determination</u>, containers <u>selected in accordance with Permit Attachment B2</u> from <u>those</u> waste streams that meet the conditions for reduced headspace gas sampling listed in Section B-3a(1) are <u>must be</u> sampled and analyzed for VOCs in the headspace gas. The LANL sealed sources waste containers that meet specified conditions must be assigned VOC concentration values in accordance with Section B-3a(1)(iii).</p>	<p>Removed mandated HSGSA and SSA requirements for confirmation of AK. Under the revised PMR, generator/storage sites are not required to confirm AK through radiography, VE, HSGSA or SSA. The generator/storage sites are required to compile an AK record and will continue to perform representative HSGSA and SSA as part of waste analysis to resolve assignment of EPA HWNs for those waste streams for which an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination. The Permittees will examine a representative subpopulation of waste prior to storage or disposal using radiography or VE as described in Permit Attachment B7. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.</p>
B-3d	<p><u>Likewise, a statistically selected portion of each homogeneous solids and soil/gravel waste streams is <u>must be</u> sampled and analyzed for RCRA-regulated total VOCs, SVOCs, and metals (see Permit Attachment B2) <u>when those waste streams do not have a NMED approved AK Sufficiency Determination or the Permittees have not requested approval of an AK Sufficiency Determination</u>.</u> Sampling and analysis methods used for waste <u>analysis</u> characterization are discussed in Section B-3a.</p>	<p>Removed mandated HSGSA and SSA requirements for confirmation of AK. Under the revised PMR, generator/storage sites are not required to confirm AK through radiography, VE, HSGSA or SSA. The generator/storage sites are required to compile an AK record and will continue to perform representative HSGSA and SSA as part of waste analysis to resolve assignment of EPA HWNs for those waste streams for which an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination. The Permittees will examine a representative subpopulation of waste prior to storage or disposal using radiography or VE as described in Permit Attachment B7. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.</p>

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Section	Change	Explanation of Change
B-3d	If the TIC associated with a total VOC or SVOC analysis cannot be identified as a component of waste packaging materials or as a product of radiolysis, the <u>Permittees generator/storage site</u> will add these TICs to the list of hazardous constituents for the waste stream (and assign additional EPA listed hazardous waste <u>codes numbers</u> , if appropriate). A permit modification will be submitted to NMED for their approval to add these constituents (and waste <u>codes numbers</u>), if necessary. For toxicity characteristic compounds and non-toxic F003 constituents, the <u>Permittees generator/storage site</u> may consider waste concentration when determining whether to change a hazardous waste <u>code number</u> . Refer to Permit Attachment B3 for additional information on TIC identification.	Clarified how generator/storage sites consider TICs during sampling and analysis. Modified language for consistency with NMAC.
B-3d	Waste <u>characterization analysis</u> solid sampling and analysis activities may differ for retrievably stored waste and newly generated waste. <u>The waste analysis processes used by the generator/storage sites for both retrievably stored and newly generated waste streams will be evaluated during the Permittees' audit of the site.</u> The <u>typical</u> waste <u>characterization analysis</u> data collection design <u>used by generator/storage sites</u> for each type of waste is described in the following sections.	Clarified that the waste analysis process used by generator/storage sites for retrievably stored and newly generated waste will be audited. Acknowledges variability among generator/storage sites waste analysis data collection designs. The justification for this change is provided in Sections and 1.2.1. and 1.2.3. of the revised PMR.
B-3d	Repackaged or treated waste shall undergo characterization required of newly generated waste except that solids sampling for repackaged or treated S3000 waste may be characterized as retrievably stored waste if the generator/storage sites demonstrates that control charting cannot be applied effectively to the repackaging or treatment process. Repackaged waste shall also undergo headspace gas analysis, and payload container headspace shall be sampled after repackaging, as long as the criteria specified in Permit Attachment B1-1 are met. Treated waste shall retain the original waste stream's listed hazardous waste <u>code number</u> designation.	Removed specific language regarding repackaged or treated waste. Generator/storage sites may perform and document VE during repackaging but they are not required to perform VE for waste analysis by specified methods. Generator/storage sites must analyze their waste to assure compliance with the TSDf-WAC regardless of whether waste is repackaged or treated. Removed HSGSA for confirmation of AK and VOC quantification. The justification for this change is provided in Sections 1.2.1. and 1.3. of the revised PMR.
B-3d(1)	The RCRA-regulated constituents in newly generated wastes will <u>typically</u> be documented at the time of generation based on acceptable knowledge for the waste stream. Newly generated TRU mixed waste <u>characterization analysis</u> will <u>typically</u> <u>begin</u> with verification that processes generating the waste have operated within established written procedures. Waste containers are delineated into waste streams using acceptable knowledge.	Modified to allow for differences between generator/storage sites circumstances when performing waste analysis. The justification for this change is provided in Section 1.2.1. of the revised PMR.

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Section	Change	Explanation of Change
B-3d(1)	Verification that the physical form of the waste (Summary Category Group) corresponds to the physical form of the assigned waste stream is accomplished either during packaging (using the VE technique) or by performing radiography. <u>The Permittees will require that the generator/storage sites document the methods used to delineate waste streams in the acceptable knowledge record and Acceptable Knowledge Summary Report</u>, as specified in Attachment B1-3 for retrievably stored waste.	Removed verification of physical form through radiography or VE. Under the revised PMR, generator/storage sites must submit methods for determining physical form, verifying the absence of prohibited items and delineating waste streams in the AK record and AK Summary report. These records are subject to review by the Permittees during the WSPF process. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.
B-3d(1)	Generator/storage sites may use either the VE technique or radiography, separately or together, as long as 100% of the containers undergo confirmation of AK. If the VE technique is used, it is different than the VE process described in Attachment B1-3b(3) and consists of the operator confirming that the waste is assigned to a waste stream that has the correct Summary Category Group for the waste being packaged.	Removed verification of physical form through radiography or VE. Under the revised PMR, generator/storage sites must submit methods for determining physical form, verifying the absence of prohibited items and delineating waste streams in the AK record and AK Summary report. These records are subject to review by the Permittees during the WSPF process. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.
B-3d(1)	If a confirmation cannot be made, corrective actions² will be taken as specified in Permit Attachment B3. Instead of using a video/audio tape as required with VE in support of radiography in Attachment B1-3b(3), the VE technique for newly generated waste (or repackaged retrievably stored waste) uses a second operator, who is equally trained to the requirements stipulated in Permit Attachment B1, to provide additional verification by reviewing the contents of the waste container to ensure correct reporting. If the second operator cannot provide concurrence, corrective actions will be taken as specified in Permit Attachment B3.	Removed verification of physical form through radiography or VE. Under the revised PMR, generator/storage sites must submit methods for determining physical form, verifying the absence of prohibited items and delineating waste streams in the AK record and AK Summary report. These records are subject to review by the Permittees during the WSPF process. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.

²- "Corrective action" as used in this WAP and its attachments does not mean corrective action as defined under HWA, RCRA, and their implementing regulations.

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Section	Change	Explanation of Change
B-3d(1)	<p>The subsequent waste characterization <u>analysis</u> activities depend on the assigned Summary Category Group, since waste within the Homogeneous Solids and Soils/Gravel Summary Category Groups will be <u>may be analyzed</u> characterized using different techniques than the waste in the Debris Waste Summary Category Group. The packaging configuration, type and number of filters, and rigid liner vent hole presence and diameter necessary to determine the appropriate drum age criteria (DAC) in accordance with Permit Attachment B1, Section B1-1, shall be documented as part of the characterization information collected during the packaging of newly generated waste or repackaging of retrievably stored waste.</p>	<p>Modified to allow for differences between generator/storage sites methods of performing waste analysis. Removed HSGSA requirements from homogeneous solids and soils/gravel waste streams. Requirements for determining the DAC for retrievably stored or newly generated waste are provided in Permit Attachment B1. The justification for this change is provided in Section 1.2.1. and 1.3. of the revised PMR.</p>
B-3d(1)	<p>If retrievably stored waste is characterized in the same manner as newly generated waste due to unacceptable AK (see Section B-1a), the option to perform radiography in lieu of or in combination with the VE technique does not apply.</p>	<p>Modified to allow for differences between generator/storage sites methods of performing waste analysis. Removed HSGSA requirements from homogeneous solids and soils/gravel waste streams. Requirements for determining the DAC for retrievably stored or newly generated waste are provided in Permit Attachment B1. The justification for this change is provided in Section 1.2.1. and 1.3. of the revised PMR.</p>
B-3d(1)	<p>With the exception of qualifying LANL sealed sources waste containers, all containers of newly generated waste or newly generated waste containers randomly selected from waste streams that meet the conditions for reduced headspace gas sampling listed in Section B-3a(1) will undergo headspace-gas analysis for VOC concentrations prior to shipment. The LANL sealed sources waste containers that meet specified conditions must be assigned VOC concentration values in accordance with Section B-3a(1)(iii). If the Permittees believe the frequency can be reduced in the future based on trends in analytical results, they may provide technical arguments for such a reduction and request a permit modification from NMED. The headspace-gas sampling method is provided in Permit Attachment B1. Headspace gas data will be used to confirm acceptable knowledge waste characterization, as specified in Permit Attachment B4.</p>	<p>Removed language specific to HSGSA newly generated waste. In the revised PMR, representative HSGSA is required for all debris waste streams to resolve assignment of EPA HWNs when an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination. In addition, under the revised PMR it is no longer necessary to derive a VOC source term for LANL waste because the disposal rooms are going to be monitoring directly for VOCs. The justification for this change is provided in Sections 1.2.1. and 1.3. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-3d(1)(a)	<p>B-3d(1)(a) <u>Sampling of Newly Generated Homogeneous Solids and Soil/Gravel</u></p> <p><u>When an AK Sufficiency Determination has not been approved by NMED or the Permittees do not request approval of an AK Sufficiency Determination, sampling and analysis of newly generated homogeneous solids and soil/gravel shall be conducted in accordance with the requirements delineated in Permit Attachment B1, Section B1-2. The number of newly generated homogeneous solid and soil/gravel waste containers to be sampled will be determined using the procedure specified in Section B2.1, wherein a statistically selected portion of the waste will be sampled.</u></p> <p>Newly generated mixed waste streams of homogeneous solids will be randomly sampled a minimum of once per year for total VOCs, SVOCs and metals.</p>	<p>Clarified purpose of representative homogeneous solids sampling and analysis. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.</p>
B-3d(1)(a)	<p>An initial ten-sample set, however, will be collected to develop the baseline control chart. Sampling frequency of once per year is only allowed if a process has operated within procedurally established bounds without any process changes or fluctuations which would result in either a new waste stream or the identification of a new hazardous waste constituent in that waste stream. Otherwise, the waste shall be considered as process batches and each batch will undergo sampling and analysis.</p>	<p>Removed language relative to control charting for newly generated waste. Control charting has never been used in the history of the program and in the revised PMR, representative sampling and analysis is required for all waste streams to resolve assignment of EPA HWNs when an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination, regardless of whether the waste is newly generated or retrievably stored. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.</p>
B-3d(1)(a)	<p>Process changes and process fluctuations will be determined using statistical process control charting techniques; these techniques require the ten-sample baseline and historical data for determining limits for indicator species and subsequent periodic sampling to assess process behavior relative to historical limits. If the limits are exceeded, the waste stream shall be recharacterized, and the characterization shall be performed according to procedures required for retrievably stored waste (i.e., waste sampling frequency will be increased). The process behind this control charting technique is described in Permit Attachment B2.</p>	<p>Removed language relative to control charting for newly generated waste. In the revised PMR, representative sampling and analysis is required for all waste streams to resolve assignment of EPA HWNs when an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination, regardless of whether the waste is newly generated or retrievably stored. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.</p>

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B-3d(1)(a)	<p>Also, as another control of waste generated from a particular process, the bounds for a waste generating process will be established by specific written procedures for that process. Examples of parameter bounds that could affect a waste generated by a process are volumes of input material, change in the input material, and any other changes that would change the output of that process.</p>	<p>Removed language relative to control charting for newly generated waste. In the revised PMR, representative sampling and analysis is required for all waste streams to resolve assignment of EPA HWNs when an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination, regardless of whether the waste is newly generated or retrievably stored. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.</p>
B-3d(1)(a)	<p>To ensure that the generator/storage site procedures for waste generating processes include controls of the waste stream, these procedures will consist of sections containing the following information:</p> <ul style="list-style-type: none"> • Responsible organizations for implementing the requirements of the procedure • Material inputs • Waste streams generated 	<p>Removed language relative to control charting for newly generated waste. In the revised PMR, representative sampling and analysis is required for all waste streams to resolve assignment of EPA HWNs when an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination, regardless of whether the waste is newly generated or retrievably stored. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.</p>
B-3d(1)(a)	<ul style="list-style-type: none"> • Process controls and range of operation (bounds) that affect final hazardous waste determinations • Rate and quantity of hazardous waste generated • List of applicable operating procedures relevant to the hazardous waste determination <p>Events where procedurally established bounds are exceeded or any condition of normal operation is not being met could trigger an increased sampling frequency of a waste stream.</p>	<p>Removed language relative to control charting for newly generated waste. In the revised PMR, representative sampling and analysis is required for all waste streams to resolve assignment of EPA HWNs when an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination, regardless of whether the waste is newly generated or retrievably stored. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.</p>

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Section	Change	Explanation of Change
B-3d(1)(a)	As long as a process does not change outside of established bounds within a year, the waste generated by that process will have the same characteristics, and therefore, a minimum of one sample will be collected annually to verify the lack of variability of that waste stream. Compliance with process procedures and the maintenance of the parameters specified by those procedures will be verified by the Permittees during the Permittees' Audit and Surveillance Program (Permit Attachment B6).	Removed language relative to control charting for newly generated waste. In the revised PMR, representative sampling and analysis is required for all waste streams to resolve assignment of EPA HWNs when an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination, regardless of whether the waste is newly generated or retrievably stored. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.
B-3d(1)(a)	The records generated by the process procedures will be examined weekly for indications of process changes or limits being exceeded that would change the hazardous constituents identified in the waste stream or add relevant prohibited materials. If these changes are discovered, the Permittees will notify NMED and will not manage, store or dispose the waste stream until a follow-up sample of process waste is collected and analyzed to assess whether the container contents are within those identified on the WSPF. If the second analysis is not consistent with the WSPF information, all waste containers in question will be segregated and a WSPF and waste generation procedures/bounds will be established.	Removed language relative to control charting for newly generated waste. In the revised PMR, representative sampling and analysis is required for all waste streams to resolve assignment of EPA HWNs when an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination, regardless of whether the waste is newly generated or retrievably stored. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.
B-3d(1)(a)	Records of that analysis will be available for examination by the auditors and will be provided to NMED upon request. If records of the analysis are not available, the Permittees will not accept the waste stream at the WIPP facility for disposal. If a generator/storage site changes a process but determines that increased sampling is not required because the change will not affect waste generated by that process, the Permittees, and NMED shall be notified in the form of a memorandum to the DOE's Carlsbad Field Office (CBFO) Waste Characterization Manager. The Permittees shall concur with the decision to not increase the sampling frequency before any additional waste from that process is shipped, and NMED will be notified of the Permittees' decision.	Removed language relative to control charting for newly generated waste. In the revised PMR, representative sampling and analysis is required for all waste streams to resolve assignment of EPA HWNs when an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination, regardless of whether the waste is newly generated or retrievably stored. Deleted reference to Waste Characterization Manager as position no longer exists. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.

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Section	Change	Explanation of Change
B-3d(1)(a)	<p>The toxicity characteristics of newly generated homogeneous solids and soils/gravel waste streams will be determined using total analysis of toxicity characteristic contaminants or TCLP. To determine if a waste exhibits a toxicity characteristic for compounds specified in 20.4.1.200 NMAC (incorporating 40 CFR §261, Subpart C), TCLP may be used instead of total analyses. The sampling methods for homogeneous solids and soil/gravel wastes are provided in Permit Attachment B1.</p>	<p>Removed language relative to control charting for newly generated waste. In the revised PMR, representative sampling and analysis is required for all waste streams to resolve assignment of EPA HWNs when an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination, regardless of whether the waste is newly generated or retrievably stored. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.</p>
B-3d(1)(a)	<p>The toxicity characteristics of newly generated homogeneous solids and soils/gravel waste streams will be determined using total analysis of toxicity characteristic contaminants or TCLP. To determine if a waste exhibits a toxicity characteristic for compounds specified in 20.4.1.200 NMAC (incorporating 40 CFR §261, Subpart C), TCLP may be used instead of total analyses. The sampling methods for homogeneous solids and soil/gravel wastes are provided in Permit Attachment B1.</p>	<p>Removed language relative to control charting for newly generated waste. In the revised PMR, representative sampling and analysis is required for all waste streams to resolve assignment of EPA HWNs when an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination, regardless of whether the waste is newly generated or retrievably stored. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.</p>
B-3d(1)(b)	<p>B-3d(1)(b) Sampling of Newly Generated Soils/Gravels</p> <p>Newly generated soils/gravel waste will be generated primarily by remediation or decontamination and decommissioning (D&D) activities. Process controls for these types of waste cannot readily be defined and, therefore, sampling cannot follow that used for newly generated homogeneous waste. The number of newly generated soils/gravel waste containers to be sampled will be determined using the procedure specified in Section B-3a(2), wherein a statistically selected portion of the waste will be sampled. The generators shall estimate the number of containers to be sampled within the waste stream based on the expected volume of the waste stream and whether SWBs or 55-gallon drum containers will be used. Refer to Permit Attachment B2 for additional information.</p>	<p>Removed language relative to process controls for newly generated soils/gravels. In the revised PMR, representative sampling and analysis is required for all waste streams to resolve assignment of EPA HWNs when an AK Sufficiency Determination has not been approved by NMED or the Permittees have not requested approval of an AK Sufficiency Determination, regardless of whether the waste is newly generated or retrievably stored. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.</p>

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Section	Change	Explanation of Change
B-3d(2)	<p>B-3d(2) <u>Retrievably Stored Waste</u></p> <p>All retrievably stored waste containers will first be delineated into waste streams using acceptable knowledge. <u>The Permittees will require that the generator/storage sites document the methods used to delineate waste streams in the acceptable knowledge record and Acceptable Knowledge Summary Report.</u> All retrievably stored waste containers will be examined using radiography to confirm the physical waste form (Summary Category Group), to verify the absence of prohibited items, and to determine the waste characterization techniques to be used based on the Summary Category Groups (i.e., S3000, S4000, S5000).—</p>	<p>Removed requirement that retrievably stored waste undergo confirmation through radiography. Instead, generator/storage sites must submit methods to verify physical form, verify the absence of prohibited items and delineate waste streams with the AK record, Waste Analysis Information Summary and summary report. Removed requirement for confirmation of radiography through VE because radiography methods for confirmation are no longer required. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.</p>
B-3d(2)	<p>Repackaged retrievably stored waste, or any retrievably stored waste with inadequate acceptable knowledge, will be characterized using either the retrievably stored or newly generated waste characterization process, whichever results in greater sampling requirements, unless it is demonstrated that control charting cannot be applied effectively.</p>	<p>Removed language regarding verification of AK for retrievably stored waste. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.</p>
B-3d(2)	<p>Solids sampling for repackaged or treated S3000 waste may be characterized as retrievably stored waste if the generator/storage sites demonstrates that control charting cannot be applied effectively to the repackaging or treatment process. This determination by the generator/storage site must be documented on the Characterization Information Summary and will be examined by the Permittees during audits (Permit Attachment B6). In this case, the minimum number of solids samples required for any S3000 waste stream or waste stream lot is the number of samples determined in accordance with Section B2-2a.</p>	<p>Removed language regarding verification of AK for retrievably stored waste. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.</p>
B-3d(2)	<p>Radiographic results will be compared to acceptable knowledge results to ensure correct Waste Matrix Code assignment and identification of prohibited items. If radiographic analysis do not confirm the physical waste form, waste will be reassigned as specified in Section B-3c. Generator/storage sites may elect to substitute visual examination for radiographic analysis.</p>	<p>Removed language regarding verification of AK for retrievably stored waste. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-3d(2)	To confirm the results of radiography, a statistically selected number of the TRU mixed waste container population will be visually examined by opening containers to inspect waste contents to verify radiography results. Permit Attachment B2 contains the approach used to statistically select the number of drums to be visually examined. For homogeneous waste and soils/gravels selected for sampling, the containers opened for sampling may be used to help fulfill the visual examination requirements.	Removed requirement that the results of radiography be statistically confirmed through VE because generator/storage sites are no longer required to perform radiography or VE for waste analysis by HWFP methods. Removed language regarding confirmation of AK through HSGSA, although generator/storage sites will use representative HSGSA to resolve assignment of EPA HWNs when NMED has not approved an AK Sufficiency Determination or the Permittees have not requested approval of an AK Sufficiency Determination. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B-3d(2)	With the exception of qualifying LANL sealed sources waste containers, all retrievably stored containers or retrievably stored containers randomly selected from waste streams that meet the conditions for reduced headspace gas sampling listed in Section B-3a(1) will undergo headspace gas analysis for VOC concentrations. The LANL sealed sources waste containers that meet specified conditions must be assigned VOC concentration values in accordance with Section B-3a(1)(iii).	Removed requirement that the results of radiography be statistically confirmed through VE because generator/storage sites are no longer required to perform radiography or VE for waste analysis by HWFP methods. Removed language regarding confirmation of AK through HSGSA, although generator/storage sites will use representative HSGSA to resolve assignment of EPA HWNs when NMED has not approved an AK Sufficiency Determination or the Permittees have not requested approval of an AK Sufficiency Determination. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B-3d(2)	Retrievably stored waste that is repackaged will be subject to the DAC determination specified in Section B-3d(1). The headspace gas sampling method is provided in Permit Attachment B1. All headspace gas data will be used, <u>when necessary</u>, to confirm acceptable knowledge waste characterization <u>resolve the assignment of EPA hazardous waste numbers to debris waste streams</u>, as specified in Permit Attachment B4.	Clarified purpose for HSGSA and applicability of sample selection requirements. The justification for this change is provided in Sections 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.
B-3d(2)	A statistically selected portion of retrievably stored homogeneous solids and soil/gravel wastes will be sampled and analyzed for total VOCs, SVOCs, and metals, <u>when necessary</u> . The approach used to statistically select drums for homogeneous solids and soil/gravel wastes is different than the method used to select waste containers for visual examination. <u>The sample location selection method</u> This method is also included <u>described</u> in Permit Attachment B2	Clarified purpose for SSA and applicability of sample selection requirements. The justification for this change is provided in Sections 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.

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Section	Change	Explanation of Change
B-3d(2)	Representativeness of containers selected for visual examination <u>for headspace gas sampling</u> and waste subjected to homogeneous solids and soil/gravel sampling and analysis will be validated by the generator/storage site and by the Permittees during an audit (Permit Attachment B6) via examination of documentation that shows that true random samples were collected.	Clarified requirements for validating representativeness of HSGSA and SSA. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B-4	The Permittees will assure that <u>applicable</u> waste characterization <u>analysis processes performed</u> by generator/storage sites sending TRU mixed waste to the WIPP for disposal meets WAP requirements through data validation, usability and reporting controls. Verification occurs at three levels: 1) the data generation level, 2) the project level, and 3) the Permittee level. The validation and verification process and requirements <u>for the data generation and project level are at each level</u> is described in Section B3-109. <u>The validation and verification process at the Permittee Level is described in Attachment B7.</u>	Editorial and provided correct reference for data generation, project level and Permittee level data verification requirements.
B-4a(1)	<ul style="list-style-type: none"> • <u>Acceptable Knowledge</u> = <u>To delineate TRU mixed waste streams.</u> = <u>To assess if TRU mixed waste complies with the TSDF-WAC.</u> = <u>To assess whether TRU mixed wastes exhibit a hazardous characteristic (20.4.1.200 NMAC, incorporating 40 CFR §261 Subpart C).</u> = <u>To assess whether TRU mixed wastes are listed (20.4.1.200 NMAC, incorporating 40 CFR §261, Subpart D).</u> = <u>To estimate waste material parameter weights.</u> 	Specified DQOs for AK. The justification for this change is provided in Sections 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment response matrix.

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Section	Change	Explanation of Change
B-4a(1)	<p>– To identify VOCs and quantify the concentrations of VOC constituents in the total waste inventory to ensure compliance with the environmental performance standards of 20.4.1.500 NMAC (incorporating 40 CFR, §264.601(c)), and <u>waste containers</u> to confirm <u>resolve the assignment of EPA</u> hazardous waste <u>numbers</u> identification by acceptable knowledge.</p>	<p>Clarified DQOs for HSGSA. The justification for this change is provided in Sections 1.2.1., 1.2.2., and 1.3. of the revised PMR.</p>
B-4a(1)	<p>– To compare UCL₉₀ values for the mean measured contaminant concentrations in a waste stream with specified toxicity characteristic levels in 20.4.1.200 NMAC (incorporating 40 CFR §261), to determine if the waste is hazardous, and to confirm <u>resolve the assignment of EPA</u> hazardous waste <u>numbers</u> identification by acceptable knowledge.</p>	<p>Clarified DQOs for SSA. The justification for this change is provided in Sections 1.2.1., 1.2.2., and 1.3. of the revised PMR.</p>
B-4a(1)	<p>— To report the average concentration of hazardous constituents in a waste stream, as specified in 20.4.1.200 NMAC (incorporating 40 CFR §261) Appendix VIII, with a 90 percent confidence interval, with all averages greater than PRQL considered a detection and subsequent assignment of the waste (if an adequate explanation for the constituent cannot be determined) as a hazardous waste, and to confirm hazardous waste identification by acceptable knowledge.</p>	<p>Removed DQO for confirmation of hazardous waste identification through SSA. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.</p>
B-4a(1)	<p>• — Radiography To verify the TRU mixed waste streams by Waste Matrix Code for purposes of physical waste form identification and determination of sampling and analytical requirements, to identify prohibited items, and to confirm the waste stream delineation by acceptable knowledge.</p>	<p>Removed DQO for radiography. These are now provided in Permit Attachment B7 relative to the Permittees' use of radiography for waste examination. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.</p>
B-4a(1)	<p>• — Visual Examination To verify the TRU mixed waste streams by Waste Matrix Code for purposes of physical waste form identification, determination of sampling and analytical requirements, and to identify prohibited items. To provide a process check on a sample basis by verifying the information determined by radiography, and to confirm the waste stream delineation by acceptable knowledge.</p>	<p>Removed DQOs for VE. These are now provided in Permit Attachment B7 relative to the Permittees use of VE for waste examination. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-4a(1)	Reconciliation of these DQOs by the Generator/Storage Site Project Manager <u>or the Permittee approved laboratories, as applicable</u> , is addressed in Permit Attachment B3.	Acknowledged Permittee approved laboratories requirement to reconcile DQOs. The justification for this change is provided in Section 1.2.1. of the revised PMR.
B-4a(2)	The generator/storage sites <u>or the Permittee approved laboratories, as applicable</u> , shall demonstrate compliance with each QAO associated with the various <u>analytical</u> methods as presented in Permit Attachment B3. Generator/Storage Site Project Managers <u>or the Permittee approved laboratories as applicable</u> , are further required to perform a reconciliation at the project level of the data sets submitted by the various organizations at the generator/storage site with the DQOs established in this WAP. The Generator/Storage Site Project Manager shall conclude that all of the DQOs have been met for the characterization of the waste stream prior to submitting a WSPF to the Permittees for approval (Permit Attachment B3):	Acknowledged Permittee approved laboratories requirement to demonstrate compliance with QAOs. <u>Editorial to remove language redundant to language in Permit Attachment B3.</u> The justification for this change is provided in Section 1.2.1. of the revised PMR.
B-4a(2)	<ul style="list-style-type: none"> • <u>Representativeness</u> = <u>Representativeness expresses the degree to which data represent characteristics of a population.</u> 	Added QAO of representativeness for completeness.
B-4a(3)	The generator/storage sites <u>and Permittee approved laboratories, as applicable</u> , will implement a sample handling and control program that will include the maintenance of field documentation records, proper labeling, and a chain of custody (COC) record. The generator/storage site <u>and Permittee approved laboratories, as applicable</u> ,	Acknowledged Permittee approved laboratories requirement to implement sample handling and control program. The justification for this change is provided in Section 1.2.1. of the revised PMR.
B-4a(4)	Batch Data Reports, in a format approved by the Permittees, will be used by each generator/storage site <u>and the Permittee approved laboratories, as applicable</u> , for reporting waste characterization <u>analysis</u> data. This format will be included in the generator/storage site <u>and the Permittee approved laboratories, as applicable</u> ,	Acknowledged Permittee approved laboratories requirement to use Batch Data Reports. The justification for this change is provided in Section 1.2.1. of the revised PMR.

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Section	Change	Explanation of Change
B-4a(4)	<p><u>The Permittees shall perform audits of the Permittee approved laboratories' programs, as implemented by the laboratories' QAPjP (See Permit Attachment B6 for a discussion of the content of the audit program). The primary functions of these audits are to review Permittee approved laboratories adherence to the requirements of this WAP. The Permittees shall provide the results of each audit to NMED. If audit results indicate that a Permittee approved laboratory is not in compliance with the requirements of this WAP, the Permittees will take appropriate action as specified in Permit Attachment B6.</u></p>	<p>Added Permittees' requirement to audit approved laboratories. The justification for this change is provided in Sections 1.2.1 and 1.2.3. of the revised PMR.</p>
B-4a(4)	<p>The Permittees shall further require all analytical Permittee approved laboratories analyzing WIPP waste characterization samples <u>in accordance with the methods specified in Permit Attachment B1</u> for the generator/storage sites to have established, documented QA/QC programs.</p>	<p>Acknowledged Permittee approved laboratories requirement to analyze samples IAW methods in the HWFP. The justification for this change is provided in Section 1.2.1. of the revised PMR.</p>
B-4a(4)	<p>Continued compliance with these parameters will be verified by ongoing audits by the Permittees at the generator/storage sites <u>these laboratories</u> as specified in Permit Attachment B6. The Permittees' audits of the generator/storage sites will verify that the laboratories analyzing waste have been properly audited by the generator/storage sites. The laboratory's QA/QC program shall include the following:</p>	<p>Clarified that audits will be performed of Permittee approved laboratories. The justification for this change is provided in Section 1.2.1. of the revised PMR.</p>
B-4a(5)	<p>Batch Data Reports will document the testing, sampling, and analytical results from the required <u>characterization waste analysis</u> activities, and document required QA/QC activities.</p>	<p>Reference to testing removed because generator/storage sites are no longer required to perform radiography for waste analysis per HWFP methods. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.</p>
B-4a(6)	<p>Once a waste stream is fully characterized <u>analyzed</u>, the Site Project Manager will also submit to the Permittees a WSPF (Figure B-1) accompanied by the <u>Characterization Waste Analysis Information Summary</u> for that waste stream which includes reconciliation with DQOs (Section B3-12b(4)). The WSPF, the <u>Characterization Waste Analysis Information Summary</u>, and information from the WWIS will be used as the basis for acceptance of waste <u>characterization analysis</u> information on TRU mixed wastes to be disposed of at the WIPP.</p>	<p>Editorial to remove redundant language.</p>

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Section	Change	Explanation of Change
B-4a(7)	Records related to waste <u>characterization analysis</u> activities <u>performed by</u> at the generator/storage sites will be maintained in the <u>testing, sampling, or analytical facility files or generator/storage site project files.</u> <u>Contract Permittee approved</u> laboratories will forward <u>testing, sampling, and analytical records along with Batch Data Reports,</u> to the generator/storage site project office for inclusion in the generator/storage site's project files <u>and to the Permittees for inclusion in the WIPP facility operating record.</u> Raw data obtained by <u>testing, sampling, and analyzing TRU mixed waste</u> in support of this WAP will be identifiable, legible, and provide documentary evidence of quality.	Editorial to clarify record keeping requirements for generator/storage sites, Permittees operating record and Permittee approved laboratories.
B-4a(7)	<u>Records of sampling and analyzing TRU mixed waste submitted to the Permittees shall be maintained in the WIPP facility operating record and be available for inspection by the NMED.</u>	Editorial to clarify record keeping requirements for generator/storage sites, Permittees operating record and Permittee approved laboratories.
B-4a(7)	<p><u>... Table B-7 6 is a listing of records designated as Lifetime Records and Non-Permanent Records. Classified information will not be transferred to WIPP. Notations will be provided to the Permittees indicating the absence of classified information. The approved generator/storage site RIDS will identify appropriate disposition of classified information. Nothing in this Permit is intended to, nor should it be interpreted to, require the disclosure of any U.S. Department of Energy classified information to persons without appropriate clearance to view such information.</u></p> <p><u>At the Permittee Level, all waste characterization analysis data for each TRU mixed waste container transmitted to WIPP shall be maintained by the Permittees for the active life of the WIPP facility plus two years and is described in Permit Attachment B7.</u> The active life of the WIPP facility is defined as the period from the initial receipt of TRU mixed waste at the facility until NMED receives certification of final closure of the facility. After their active life, the records shall be retired to the FRC and maintained for 30 years. These records will then be offered to the National Archives. However, this disposition requirement does not preclude the inclusion of these records in the permanent marker system or other requirements for institutional control.</p>	<p><u>Editorial.</u></p> <p>This information has been moved with editorial revisions to Section B7-4. The justification for this change is provided in Section 1.2. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-4b	<p>B-4b <u>Permittee Level: Waste Screening and Verification of TRU Mixed Waste</u></p> <p>Permittee waste screening is a two-phased process. Phase I will occur prior to transporting the TRU mixed waste to the WIPP facility. Phase II will occur after the TRU mixed waste shipment arrives but before it is emplaced. Figure B-5 presents the waste shipment screening process.</p>	<p>This information has been moved with editorial revisions to Section B7-1. The justification for this change is provided in Section 1.2. of the revised PMR.</p>
B-4b(1)	<p>B-4b(1) <u>Phase I Waste Stream Screening and Verification</u></p> <p>The first phase of the waste screening and verification process will occur before TRU mixed waste is shipped to the WIPP facility. Before the Permittees begin the process of accepting TRU mixed waste from a generator/storage site, an initial audit of that generator/storage site will be conducted as part of the Permittees' Audit and Surveillance Program (Permit Attachment B6). The RCRA portion of the generator/storage site audit program will provide on-site verification of characterization procedures; Batch Data Report preparation; and recordkeeping to ensure that all applicable provisions of the WAP requirements are met. Another portion of the Phase I verification is the WSPF approval process. At the WIPP facility, this process includes verification that all of the required elements of the WSPF and the Characterization Information Summary are present (Permit Attachment B3) and that the waste characterization information meet acceptance criteria required for compliance with the WAP (Section B3-12b(1)).</p>	<p>This information has been moved with editorial revisions to Section B7-1a. The justification for this change is provided in Section 1.2. of the revised PMR.</p>
B-4b(1)	<p>Once a generator/storage site has prepared a QAPjP which includes applicable WAP requirements, it is submitted to the Permittees for review and approval (Permit Attachment B5). Once approved, a copy of the QAPjP is provided to NMED for examination. The generator/storage site will implement the specific parameters of the QAPjP after it is approved. The initial generator/storage site RCRA audit will be performed at some point after this implementation has taken place, but prior to shipment of TRU mixed waste from that generator/storage site to WIPP. Additional audits, focusing on the results of waste characterization, will be performed at least annually. The Permittees have the right to conduct unannounced audits and to examine any records that are related to the scope of the audit.</p>	<p>This information has been moved with editorial revisions to Section B7-1a. The justification for this change is provided in Section 1.2. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-4b(1)	<p>When the required waste stream characterization data have been collected by a generator/storage site and the initial generator/storage site audit has been successfully completed, the generator/storage Site Project Manager will verify that waste stream characterization meets the applicable WAP requirements as a part of the project level verification (Section B3-10b). If the waste characterization does not meet the applicable requirements of the WAP, the mixed waste stream cannot be managed, stored, or disposed at WIPP until those requirements are met. The Site Project Manager will then complete a WSPF and submit it to the Permittees, along with the accompanying Characterization Information Summary for that waste stream (Section B3-12b(1)). All data necessary to check the accuracy of the WSPF will be transmitted to the Permittees for verification.</p>	<p>This information has been moved with editorial revisions to Section B7-1a. The justification for this change is provided in Section 1.2. of the revised PMR.</p>
B-4b(1)	<p>This provides notification that the generator/storage site considers that the waste stream (identified by the waste stream identification number) has been adequately characterized for disposal prior to shipment to WIPP. The Permittees will compare headspace gas, radiographic, visual examination and solid sampling/analysis data obtained subsequent to submittal and approval of the WSPF (and prior to submittal) with characterization information presented on this form. If the Permittees determine (through the data comparison) that the characterization information is adequate, the WSPF will be approved. Prior to the first shipment of containers from the approved waste stream, the approved WSPF and accompanying Characterization Information Summary will be provided to NMED. If the data comparison indicates that analyzed containers have hazardous wastes not present on the WSPF, or a different Waste Matrix Code applies, the WSPF is in error and shall be resubmitted. Ongoing WSPF examination is discussed in detail in Section B-4b(1)(ii).</p>	<p>This information has been moved with editorial revisions to Section B7-1a. The justification for this change is provided in Section 1.2. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-4b(1)	<p>As part of the waste characterization data submittal, the generator/storage site will also transmit the data on a container basis via the WWIS. This data submittal can occur at any time as the data are being collected, but will be complete for each container prior to shipment of that container. The WWIS will conduct internal edit/limit checks as the data are entered, and the data will be available to the Permittees for review as supporting information for WSPF review. NMED will have read-only access to the WWIS as necessary to determine compliance with the WAP. The initial WSPF check performed by the Permittees will include WWIS data and the Characterization Information Summary. The Permittees will compare ongoing sampling/analysis characterization data obtained and submitted via the WWIS to the approved WSPF. If this comparison shows that containers have hazardous wastes not reported on the WSPF, or a different Waste Matrix Code applies, the data are rejected and the waste containers are not accepted for shipment.</p>	<p>This information has been moved with editorial revisions to Section B7-1a. The justification for this change is provided in Section 1.2. of the revised PMR.</p>
B-4b(1)	<p>If discrepancies arise as a result of the Phase I review, the generator/storage sites will be contacted by the Permittees and required to provide the necessary additional information to resolve the discrepancy before that waste stream is approved for disposal at the WIPP facility. If the discrepancy is not resolved, the waste stream will not be approved. The Permittees will notify NMED in writing of any discrepancies identified during WSPF review and the resulting discrepancy resolution prior to waste shipment. The Permittees will not manage, store, or dispose the waste stream until this discrepancy is resolved in accordance with this WAP.</p>	<p>This information has been moved with editorial revisions to Section B7-1a. The justification for this change is provided in Section 1.2. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-4b(1)(i)	<p>B-4b(1)(i) <u>WWIS Description</u></p> <p>All generator/storage sites planning to ship TRU mixed waste to WIPP will supply the required data to the WWIS. The Permittees will use the WWIS to verify that all of the supplied data meet the edit and limit checks prior to the shipment of any TRU mixed waste to WIPP. The WWIS automatically will notify the generator/storage site if any of the supplied data fails to meet the requirements of the edit and limit checks via an appropriate error message. The generator/storage site will be required to correct the discrepancy with the waste or the waste data and re-transmit the corrected data prior to acceptance of the data by the WWIS. The Permittees will review data reported for each container of each shipment prior to providing notification to the shipping generator/storage site that the shipment is acceptable. Read-only access to the WWIS will be provided to the NMED. Table B-8 contains a listing of the data fields contained in the WWIS that are required as part of this Permit.</p>	<p>This information has been moved to Section B7-1a(2). The justification for this change is provided in Section 1.2. of the revised PMR.</p>
B-4b(1)(i)	<p>The WWIS will generate the following:</p> <ul style="list-style-type: none"> • Waste Emplacement Report <p>This report will be added to the operating record to track the quantities of waste, date of emplacement, and location of authorized containers or container assemblies in the repository. The Permittees will document the specific panel room or drift that an individual waste container is placed in as well as the row/column/height coordinates location of the container or containers assembly. This report will be generated on a weekly basis. Locations of containers or container assemblies will also be placed on a map separate from the WWIS. Reports and maps that are included as part of the operating record will be retained at the WIPP site, for the life of the facility.</p>	<p>This information has been moved to Section B7-1a(2). The justification for this change is provided in Section 1.2. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-4b(1)(i)	<p style="text-align: center;">• Shipment Summary Report</p> <p>This report will contain the container IDs of every container in the shipment, listed by Contact Handled Package number and by assembly number (for seven-packs, four-packs, and three-packs), for every assembly in the Contact Handled Package. This report is used by the Permittees to verify containers in a shipment and will be generated on a shipment basis.</p> <p style="text-align: center;">• Waste Container Data Report</p> <p>This report will be generated on a waste stream basis and will be used by the Permittees during the WSPF review and approval process. This report will contain the data listed in the Characterization Module on Table B-8. This report will be generated and attached to the WSPF for inclusion in the facility operating record and will be kept for the life of the facility.</p>	This information has been moved to Section B7-1a(2). The justification for this change is provided in Section 1.2. of the revised PMR.
B-4b(1)(i)	<p style="text-align: center;">• Reports of Change Log</p> <p>This will consist of a short report that lists the user ID and the fields changed. The report will also include a reason for the change. A longer report will list the information provided on the short report and include a before and after image of the record for each change, a before-record for each deletion, and the new information for added records. These reports will provide an auditable trail for the data in the database.</p> <p>The WWIS shall have data available for export so that the Permittees and NMED can summarize headspace gas concentrations for the open room being loaded. This is required to allow calculations of average room headspace gas concentrations to ensure they do not exceed the limits specified in Table B-2.</p> <p>Access to the WWIS will be controlled by the Permittees' Data Administrator (DA) who will control the WWIS users based on approval from management personnel.</p>	This information has been moved to Section B7-1a(2). The justification for this change is provided in Section 1.2. of the revised PMR.

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Section	Change	Explanation of Change
B-4b(1)(i)	<p>The TRU mixed waste generator/storage sites will only have access to data that they have supplied, and only until the data have been formally accepted by the Permittees. After the data have been accepted, the data will be protected from indiscriminate change and can only be changed by a authorized DA.</p> <p>The WWIS has a Change Log that requires a reason for the change from the DA prior to accepting the change. The data change information, the user ID of the authorized DA making the change, and the date of the change will be recorded in the data change log automatically. The data change log cannot be revised by any user, including the DA. The data change log will be subject to internal and external audits and will provide an auditable trail for all changes made to previously approved data.</p>	<p>This information has been moved to Section B7-1a(2). The justification for this change is provided in Section 1.2. of the revised PMR.</p>
B-4b(1)(ii)	<p>B-4b(1)(ii) <u>Examination of the Waste Stream Profile Form and Container Data Checks</u></p> <p>The Permittees will be responsible for the verification of completeness and accuracy of the Waste Stream Profile Form (Section B3-12b(1)). The assignment of the waste stream description, Waste Matrix Code Group, and Summary Category Groups; the results of waste analyses; the acceptable knowledge summary documentation; the methods used for characterization; the Carlsbad Field Office (CBFO) certification; and appropriate designation of EPA hazardous waste code(s) will be examined. If the WSPF is inaccurate, efforts will be made to resolve discrepancies by contacting the generator/storage site. If discrepancies in the waste stream are detected at the generator/storage site, the generator/storage site will implement a non-conformance program to identify, document, and report discrepancies (Permit Attachment B3).</p>	<p>This information has been moved with editorial revisions to Section B7-1a(3). The justification for this change is provided in Section 1.2. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-4b(1)(ii)	<p>The WSPF shall pass all verification checks by the Permittees in order for the waste stream to be approved for shipment to the WIPP facility. The WSPF check against waste container data will occur during the initial WSPF approval process (Section B-4b(1)).</p> <p>The EPA hazardous waste codes for the wastes that appear on the Waste Stream Profile Form will be compared to those in the Permittees' RCRA Part A Permit Application (Section XIV of Permit Attachment O) to ensure that only wastes that contain constituents listed Section XIV are approved for management, storage, or disposal at WIPP. Some of the waste may also be identified by unique state hazardous waste codes. These wastes are acceptable at WIPP as long as the TSDf-WAC are met. The Characterization Information Summary will be reviewed by the Permittees to verify that the waste has been classified correctly with respect to the assigned EPA hazardous waste codes. The analytical method used will be compared to those listed in Tables B-3, B-4, and B-5 to assure that only approved analytical methods were used for analysis of the waste.</p>	<p>This information has been moved with editorial revisions to Section B7-1a(3). The justification for this change is provided in Section 1.2. of the revised PMR.</p>
B-4b(1)(ii)	<p>The Permittees will verify that TSDf-WAC compliance has been met by the generator/storage site.</p> <p>Waste data transferred via the WWIS after WSPF approval will be compared with the approved WSPF. Any container with a hazardous waste stream description different from its WSPF will not be managed, stored, or disposed at WIPP.</p>	<p>This information has been moved with editorial revisions to Section B7-1a(3). The justification for this change is provided in Section 1.2. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-4b(1)(ii)	<p>The Permittees will also verify that three different types of data specified below are available for every container holding TRU mixed waste before that waste is managed, stored, or disposed at WIPP. The following three verifications will be performed on data from the following determinations: 1) an assignment of the waste stream's waste description (by Waste Matrix Codes) and Waste Matrix Code Group; 2) a determination of ignitability, reactivity, and corrosivity; and 3) a determination of compatibility. The verification of waste stream description will be performed by reviewing the WWIS for consistency in the waste stream description and WSPF. The Characterization Information Summary will indicate if the waste has been checked for the characteristics of ignitability, corrosivity, and reactivity. The final verification of waste compatibility will be performed using Appendix C1 of the WIPP RCRA Part B Permit Application (DOE, 1997), the compatibility study.</p>	<p>This information has been moved with editorial revisions to Section B7-1a(3). The justification for this change is provided in Section 1.2. of the revised PMR.</p>
B-4b(1)(iii)	<p>B-4b(1)(iii) <u>Permittees' Audit and Surveillance Program</u></p> <p>An important part of the Permittees' verification process is the Permittees' Audit and Surveillance Program. The focus of this audit program is compliance with this WAP and the Permit. This audit program addresses all waste sampling and analysis activities, from waste stream classification assignment through final loading of the Contact Handled Package, and ensures compliance with SOPs and the WAP. Audits will assure that containers and their associated documentation are adequately tracked throughout the waste handling process.</p>	<p>This information has been moved with editorial revision to B7-1a(1). The justification for this change is provided in Section 1.2. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-4b(1)(iii)	<p>Operator qualifications will be verified, and QA/QC procedures will be surveyed. A final report that includes generator/storage site audit results and applicable WAP-related corrective action report (CAR) resolution will be provided to NMED for approval, and will be kept in the WIPP facility operating record until closure of the WIPP facility.</p> <p>An initial audit will be performed at each generator/storage site performing waste characterization activities prior to the formal acceptance of the WSPFs and/or any waste characterization data supplied by the generator/storage sites. Audits will be performed at least annually thereafter, including the possibility of unannounced audits (i.e., not a regularly scheduled audit). These audits will allow NMED to verify that the Permittees have implemented the WAP and that generator/storage sites have implemented a QA program for the characterization of waste and meet applicable WAP requirements.</p>	This information has been moved with editorial revision to B7-1a(1). The justification for this change is provided in Section 1.2. of the revised PMR.
B-4b(1)(iii)	<p>The accuracy of physical waste description and waste stream assignment provided by the generator/storage site will be verified by review of the radiography results, and visual examination of data records and radiography images (as necessary) during audits conducted by the Permittees. More detail on this audit process is provided in Permit Attachment B6.</p>	This information has been moved with editorial revision to B7-1a(1). The justification for this change is provided in Section 1.2. of the revised PMR.
B-4b(2)	<p><u>B-4b(2) Phase II Waste Shipment Screening and Verification</u></p> <p>Phase II of the waste shipment screening and verification process includes examination of a waste shipment after the waste shipment has arrived. The Phase II determinations are: 1) a determination of the completeness and accuracy of the EPA Hazardous Waste Manifest; 2) a determination of waste shipment completeness; 3) a determination of land disposal restriction notice completeness; and 4) an identification and resolution of waste shipment irregularities. Only those waste containers that pass all Phase II waste screening determinations will be emplaced at WIPP. For each container shipped, the Permittees shall ensure that the generator/storage sites provide the following information:</p>	This information has been moved with editorial revision to B7-1b. The justification for this change is provided in Section 1.2. of the revised PMR.

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Section	Change	Explanation of Change
B-4b(2)	<p>———— Hazardous Waste Manifest Information:</p> <ul style="list-style-type: none"> • ——— Generator/storage site name and EPA ID • ——— Generator/storage site contact name and phone number • ——— Quantity of waste • ——— List of the hazardous waste codes in the shipment • ——— Listing of all shipping container IDs (Contact Handled Package serial number) ———— • ——— Signature of authorized generator representative <p>———— Specific Waste Container information:</p> <ul style="list-style-type: none"> ———— • ——— Waste Stream Identification Number ———— • ——— List of Hazardous Codes per Container 	<p>This information has been moved with editorial revision to B7-1b. The justification for this change is provided in Section 1.2. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-4b(2)	<p> <ul style="list-style-type: none"> • Certification Data • Shipping Data (Assembly numbers, ship date, shipping category, etc.) </p> <p> This information shall also be supplied electronically to the WWIS. The container-specific information will be supplied electronically as part of the Level 3 Phase I Screening, and shall be supplied prior to the Permittees' management, storage, or disposal of the waste. </p> <p> The Permittees will verify each approved shipment upon receipt at WIPP against the data on the WWIS shipment summary report to ensure containers have the required information. A Waste Receipt Checklist will be used to document the verification. </p>	<p>This information has been moved with editorial revision to B7-1b. The justification for this change is provided in Section 1.2. of the revised PMR.</p>
B-4b(2)(I)	<p> <u>B-4b(2)(I) Examination of the EPA Uniform Hazardous Waste Manifest and Associated Waste Tracking Information</u> </p> <p> Upon receipt of a TRU mixed waste shipment, the Permittees will make a determination of EPA Uniform Hazardous Waste Manifest completeness and sign the manifest to allow the driver to depart. The Permittees will then make a determination of waste shipment completeness by checking the unique, bar-coded identification number found on each container holding TRU mixed waste against the WWIS database after opening the Contact Handled Package. </p> <p> The WWIS links the bar-coded identification numbers of all containers in a specific waste shipment to the waste assembly (for 7-packs, 4-packs, and 3-packs) and to the shipment identification number, which is also written on the EPA Hazardous Waste Manifest. Generators electronically transmit the waste shipment information to the WWIS before the TRU mixed waste shipment is transported. Once a TRU mixed waste shipment arrives, the Permittees verify the identity of each container using the data already in the WWIS. </p>	<p>This information has been moved to Section B7-1b(1). The justification for this change is provided in Section 1.2. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-4b(2)(I)	<p>The WWIS will maintain waste container receipt and emplacement information provided by the Permittees. It will include, among other items, the following information associated with each container of TRU mixed waste:</p> <ul style="list-style-type: none"> • Contact Handled Package inner containment vessel closure date • Package (container) receipt date • Overpack identification number (if appropriate) • Package (container) emplacement date • Package (container) emplacement location <p>The WWIS links the bar-coded identification numbers of all containers in a specific TRU mixed waste shipment to the waste assembly (for 7-packs, 4-packs, and 3-packs) and to the shipment identification number, which is also written on the EPA Hazardous Waste Manifest. Generators electronically transmit the waste shipment information to the WWIS before the TRU mixed waste shipment is transported. Once a TRU mixed waste shipment arrives, the Permittees verify the identity of each container (or one container in a bound 7-pack, 4-pack, or 3-pack) using the data already in the WWIS.</p>	<p>This information has been moved to Section B7-1b(1). The justification for this change is provided in Section 1.2. of the revised PMR.</p>
B-4b(2)(I)	<p>Discrepancies will be identified during manifest examination and container bar-code WWIS data comparison. A manifest discrepancy is a difference between the quantity or type of hazardous waste designated on the manifest and the quantity or type of hazardous waste the WIPP facility actually receives. The generator/storage site technical contact (as listed on the manifest) will be contacted to resolve the discrepancy. If the discrepancy is identified prior to the containers being removed from the Contact Handled Package, the waste will be retained in the parking area. If the discrepancy is identified after the waste containers are removed from the Contact Handled Package, the waste will be retained in the Waste Handling Building (WHB) until the discrepancy is resolved. Errors on the manifest can be corrected by the WIPP facility with a verbal (followed by a mandatory written) concurrence by the generator/storage site technical contact. All discrepancies that are unresolved within fifteen (15) days of receiving the waste will be immediately reported to the NMED in writing.</p>	<p>This information has been moved to Section B7-1b(1). The justification for this change is provided in Section 1.2. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-4b(2)(i)	<p>Notifications to the NMED will consist of a letter describing the discrepancies, discrepancy resolution, and a copy of the manifest. If the manifest discrepancies have not been resolved within thirty (30) days of waste receipt, the shipment will be returned to the generator/storage facility. If it becomes necessary to return waste containers to the generator/storage site, a new EPA Uniform Hazardous Waste Manifest may be prepared by the Permittees.</p> <p>Documentation of the returned containers will be recorded in the WWIS. Changes will be made to the WWIS data to indicate the current status of the container(s). The reason for the WWIS data change and the record of the WWIS data change will be maintained in the change log of the WWIS, which will provide an auditable record of the returned shipment. The Permittees will be responsible for the resolution of discrepancies, notification of the NMED, as well as returning the original copy of the manifest to the generator/storage site.</p>	This information has been moved to Section B7-1b(1). The justification for this change is provided in Section 1.2. of the revised PMR.
B-4b(2)(ii)	<p>B-4b(2)(ii) <u>Examination of the Land Disposal Restriction (LDR) Notice</u></p> <p>TRU mixed waste is exempt from the LDRs by the Land Withdrawal Act Amendment (Public Law 104-201). This amendment states that WIPP "Waste is exempted from treatment standards promulgated pursuant to section 3004(m) of the Solid Waste Disposal Act (42 U.S. C. 6924(m)) and shall not be subjected to the Land Disposal prohibitions in section 3004(d), (e), (f), and (g) of the Solid Waste Disposal Act." Therefore, with the initial shipment of a TRU mixed waste stream, the generator shall provide the Permittees with a one time written notice. The notice must include the information listed below:</p> <p>_____ Land Disposal Restriction Notice Information:</p> <p>_____ ● _____ EPA Hazardous Waste Number(s) and Manifest Numbers of first shipment of a mixed waste stream</p> <p>_____ ● _____ Statement: this waste is not prohibited from land disposal</p> <p>_____ ● _____ Date the waste is subject to prohibition</p>	This information has been moved to Section B7-b(2). The justification for this change is provided in Section 1.2. of the revised PMR.

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Section	Change	Explanation of Change
B-4b(2)(ii)	<p>This information is the applicable information taken from column "268.7(a)(4)" of the "Generator Paperwork Requirements Table" in 20.4.1.800 NMAC (incorporating 40 CFR 268.7(a)(4)). Note that item "5" from the "Generator Paperwork Requirements Table" is not applicable since waste analysis data are provided electronically via the WWIS and item "7" is not applicable since WIPP waste is exempted from the treatment standards.</p> <p>The Permittees will review the LDR notice for accuracy and completeness. The generator will prepare this notice in accordance with the applicable requirements of 20.4.1.800 NMAC (incorporating 40 CFR §268.7(a)(4)).</p>	This information has been moved to Section B7-b(2). The justification for this change is provided in Section 1.2. of the revised PMR.
B-4b(2)(iii)	<p>B-4b(2)(iii) Verification</p> <p>The Permittees will make a determination of TRU mixed waste shipment irregularities. The following items will be inspected for each TRU mixed waste shipment arriving at the WIPP facility:</p> <ul style="list-style-type: none"> —————•————— Whether the number and type of containers holding TRU mixed waste match the information in the WWIS —————•————— Whether there are any container defects <p>The Permittees will verify that the containers (as identified by their container ID numbers) are the containers for which accepted data already exists in the WWIS. A check will be performed by the Permittees comparing the data on the WWIS Shipment Summary Report for the shipment to the actual shipping papers (including the EPA Hazardous Waste Manifest). This check also verifies that the containers included in the shipment are those for which approved shipping data already exist in the WWIS Transportation Data Module (Table B-8).</p>	This information has been moved to Section B7-b(2). The justification for this change is provided in Section 1.2. of the revised PMR.

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Section	Change	Explanation of Change
B-4b(2)(iii)	<p>For standard waste boxes (SWBs) and ten drum overpacks (TDOPs), this check will include comparing the barcode on the container with the container number on the shipping papers and the data on the WWIS Shipment Summary Report. For 7-pack assemblies, one of the seven container barcodes will be read by the barcode reader and compared to the assembly information for this container on the WWIS Shipment Summary Report. This will automatically identify the remaining six containers in the assembly. This process enables the Permittees to identify all of the containers in the assembly with minimum exposure. If all of the container IDs and the information on the shipping papers agree with the WWIS Shipment Summary Report, the containers will be approved for disposal at the WIPP facility.</p>	<p>This information has been moved to Section B7-b(2). The justification for this change is provided in Section 1.2. of the revised PMR.</p>
B-4b(2)(iv)	<p>B-4b(2)(iv) <u>Waste Shipment Screening QA/QC</u></p> <p>Waste shipment screening QA/QC ensures that TRU mixed waste received is that which has been approved for shipment during the Phase I screening. This is accomplished by maintaining QA/QC control of the waste shipment screening process. The screening process will be controlled by administrative processes which will generate records documenting waste receipt that will become part of the waste receipt record. The waste receipt record documents that container identifications correspond to shipping information and approved TRU mixed waste streams. The Permittees will extend QA/QC practices to the management of all records associated with waste shipment screening determinations.</p>	<p>This information has been moved with editorial revisions to Section B7-2. The justification for this change is provided in Section 1.2. of the revised PMR.</p>
B-4b(2)(v)	<p>B-4b(2)(v) <u>Records Management and Reporting</u></p> <p>As part of the WIPP facility's operating record, data and documents associated with waste characterization data are managed in accordance with standard records management practices. The storage of the Permittees' copy of the manifest, LDR information, waste characterization data, WSPFs, and other related records will be identified on the appropriate records inventory and disposition schedule.</p> <p>Waste characterization data and documents related to waste characterization that are part of the WIPP facility operating record are managed in accordance with the following guidelines:</p>	<p>This information has been moved with editorial revisions to Section B7-4. The justification for this change is provided in Section 1.2. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-4b(2)(vi)	<p>B-4b(2)(vi) <u>General Requirements</u></p> <ul style="list-style-type: none"> • Records shall be legible • Corrections shall be made with a single line through the incorrect information, and the date and initial of the person making the correction shall be added • Black ink is encouraged, unless a copy test has been conducted to ensure the other color ink will copy • Use of highlighters on records is discouraged • Records shall be reviewed for completeness • Records shall be validated by the cognizant manager or designee 	<p>This information has been moved to Section B7-4(i). The justification for this change is provided in Section 1.2. of the revised PMR.</p>
B-4b(2)(vii)	<p>B-4b(2)(vii) <u>Records Storage</u></p> <ul style="list-style-type: none"> • Active records shall be stored when not in use • Quality records shall be kept in a one-hour (certified) fire-rated container or a copy of a record shall be stored separately (sufficiently remote from the original) in order to prevent destruction of both copies as a result of a single event such as fire or natural disaster • Unauthorized access to the records is controlled by locking the storage container or controlling personnel access to the storage area <p>The following records will be maintained for waste characterization purposes as part of the WIPP facility operating record:</p> <ul style="list-style-type: none"> • Completed WIPP WSPFs and accompanying Characterization Information Summary, including individual container data as transferred on the WWIS (or received as hard-copy) and any discrepancy-related documentation as specified in Section B-4b(1) 	<p>This information has been moved to Section B7-4(ii). The justification for this change is provided in Section 1.2. of the revised PMR.</p>

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Section	Change	Explanation of Change
B-4b(2)(vii)	<p>Completed Waste Receipt Checklists and discrepancy-related documentation as specified in Section B-4b(2)</p> <p>WIPP WWIS Waste Emplacement Report as specified in Section B-4b(1)(f)</p> <p>Audit reports and corrective action reports from the Permittees' Audit and Surveillance Program audits as specified in Section B-4b(1)(iii) and Permit Attachment B6</p> <p>These records will be maintained for each TRU mixed waste container managed at the WIPP facility.</p> <p><u>B-4b(2)(viii) Reporting</u></p> <p>The Permittees will provide a biennial report in accordance with 20.4.1.500 NMAC (incorporating 40 CFR §264.75) to NMED that includes information on actual volume and waste descriptions received for disposal during the time period covered by the report.</p>	<p>This information has been moved to Section B7-4(b). The justification for this change is provided in Section 1.2. of the revised PMR.</p>

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Section	Change	Explanation of Change
References	<p>U.S. Department of Energy (DOE), 1995c, "Performance Demonstration Program Plan for the Analysis of Simulated Headspace Gases for the TRU Waste Characterization Program," CAO-95-1076, Current Revision, Carlsbad, New Mexico, Carlsbad Field Office, U.S. Department of Energy.</p> <p>U.S. Department of Energy (DOE), 1995d, "Performance Demonstration Program Plans for Analysis of Solid Waste Forms," CAO-95-1077, Current Revision, Carlsbad, New Mexico, Carlsbad Field Office, U.S. Department of Energy.</p> <p><u>The Energy and Water Development Appropriations Act, Section 311, Public Law 108-137</u></p> <p><u>The Consolidated Appropriations Act, 2005, Section 310, Public Law 108-447.</u></p>	<p>References obsolete. Current program description on file in Project Office.</p> <p>New References.</p>

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Section	Change	Explanation of Change
Table B-1	<p>Total Semivolatile Organic Compound Analysis ^g</p> <p>Total Metals Analysis ^g</p> <p>Formaldehyde^h</p> <p>Hydrazine^f</p> <p>^a Permit Attachment B</p> <p>^b Required only for homogeneous solids and soil/gravel waste from Savannah River Site <u>to resolve the assignment of EPA hazardous waste numbers</u></p> <p>^c Required only for homogeneous solids and soil/gravel waste from Oak Ridge National Laboratory and Savannah River Site <u>to resolve the assignment of EPA hazardous waste numbers.</u></p> <p>^d Can also be analyzed as a semi-volatile organic compound.</p> <p>^e Can also be analyzed as a volatile organic compound.</p> <p>^g <u>Required only to resolve the assignment of EPA hazardous waste numbers to debris waste streams.</u></p> <p>^g <u>Required only to resolve assignment of EPA hazardous waste numbers to homogeneous solid and soil/gravel waste streams.</u></p> <p>Waste Inspection Analysis Procedures</p> <p><u>Acceptable Knowledge</u> <u>(Permit Attachment B4)</u></p> <p>Radiography Visual Examination (Permit Attachment B4-3)</p>	<p>Clarified methods required for resolution of EPA hazardous waste numbers. The analytes are deleted because they only apply to homogeneous solids or soil/gravel, which are not subject to headspace gas sampling under the revised PMR. The justification for this change is provided in Section 1.2.1. of the revised PMR.</p>

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Section	Change	Explanation of Change
Table B-2	<p>TABLE B-2 MAXIMUM ALLOWABLE VOC ROOM-AVERAGED HEADSPACE CONCENTRATION LIMITS (PPMV)</p> <p>COMPOUND — VOC HEADSPACE CONCENTRATION LIMITS^a (PPMV)</p> <p>Carbon Tetrachloride — 9625 Chlorobenzene — 13000 Chloroform — 9930 1,1-Dichloroethene — 5490 1,2-Dichloroethane — 2400 Methylene Chloride — 100000 1,1,2,2-Tetrachloroethane — 2960 Toluene — 11000 1,1,1-Trichloroethane — 33700</p> <p>^a There are no headspace limits for other VOCs.</p>	Removed obsolete table. The justification for this change is provided in Sections 1.2.1., 1.2.2. and 1.3. of the revised PMR.
Table B-3	<p>TABLE B-32 Formaldehyde^b Hydrazine^c ^b Required only for containers of homogeneous solids and soil/gravel waste from Savannah River Site. ^c Required only for containers of homogeneous solids and soil/gravel waste from Oak Ridge National Laboratory and Savannah River Site. ^b <u>Required only for debris waste when required to resolve the assignment of EPA hazardous waste numbers.</u></p>	Clarified requirements for resolution of EPA hazardous waste numbers. The analytes are deleted because they only apply to homogeneous solids or soil/gravel, which are not subject to headspace gas sampling under the revised PMR. The justification for this change is provided in Section 1.2.1. of the revised PMR.
Table B-4	<p>TABLE B-43 TABLE B-43 (CONTINUED) ^b <u>Required only for debris waste to resolve the assignment of EPA hazardous waste numbers.</u></p>	Clarified requirements for resolution of EPA hazardous waste numbers. The justification for this change is provided in Section 1.2.1. of the revised PMR.

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Section	Change	Explanation of Change
Table B-5	<p>TABLE B-54 EPA-Specified Analytical Methods^{a,b,c} <u>c Required only for homogeneous solids and soil/gravel to resolve the assignment of EPA hazardous waste numbers.</u></p>	<p>Clarified requirements for resolution of EPA hazardous waste numbers. The justification for this change is provided in Section 1.2.1. of the revised PMR.</p>
Table B-6	<p>TABLE B-65 Headspace gases</p> <ul style="list-style-type: none"> • Gas volatile organic compounds (VOC) 100% radiography or visual examination <u>Acceptable Knowledge</u> 100% gas sampling and analysis or statistical sampling^{a,b} (see Table B-3) <u>Acceptable Knowledge or</u> Statistical sampling^a (see Tables B-43 and B-54) • Quantify concentration of flammable VOCs • Determine potential flammability of transuranic (TRU) mixed waste headspace gases • Quantify concentrations of VOC constituents in headspace of containers • Ensure that environmental performance standards are not exceeded • Determine characteristic metals and organics • Determine total quantity of metals, VOCs, and semi-VOCs 	<p>Clarified waste analysis requirements for TRU mixed waste. "Verify" changed to "determine" to be consistent with purpose of AK method. The justification for this change is provided in Sections 1.2.1., 1.2.2. and 1.3. of the revised PMR.</p>

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Section	Change	Explanation of Change
Table B-6	<p>TABLE B-65 (CONTINUED)</p> <p>100% Radiography</p> <p>Visual examination (statistical sample)⁷ or visual examination</p> <p><u>Acceptable Knowledge</u></p> <p>100% <u>Statistical</u> gas sampling and analysis, statistical sampling or assignment of VOC concentrations^a (see Table B-32)</p> <ul style="list-style-type: none"> • Quantify concentration of flammable VOCs • Determine potential flammability of TRU mixed waste headspace gases • Quantify concentrations of VOC constituents in headspace of containers • Ensure that environmental performance standards are not exceeded • Verify acceptable knowledge • <u>Resolve the assignment of EPA hazardous waste numbers</u> • Determine characteristic metals and organics • Determine total quantity of metals, VOCs, and semi-VOCs 	<p>Clarified waste analysis requirements for TRU mixed waste. "Verify" changed to "determine" to be consistent with purpose of AK method. The justification for this change is provided in Sections 1.2.1., 1.2.2. and 1.3. of the revised PMR.</p>

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Section	Change	Explanation of Change
Table B-6	<p>TABLE B-65 (CONTINUED) Documentation and verification⁷ or radiography. Applies to 100% of containers <u>Acceptable Knowledge</u> 100% gas sampling and analysis or statistical sampling^{8b} (see Table B-3) Headspace gases</p> <ul style="list-style-type: none"> • Gas VOCs (VOCs) <p>Statistical sampling^a (see Tables B-43 and B-54)</p> <ul style="list-style-type: none"> • Quantify concentration of flammable VOCs • Determine potential flammability of TRU mixed waste headspace gases • Quantify concentrations of VOC constituents in headspace of containers • Ensure that environmental performance standards are not exceeded • Determine characteristic metal and organics • Determine total quantity of metals, VOCs, and semi-VOCs • Resolve the assignment of EPA hazardous waste numbers 	<p>Clarified waste analysis requirements for TRU mixed waste. The justification for this change is provided in Sections 1.2.1., 1.2.2. and 1.3. of the revised PMR.</p>
Table B-6	<p>TABLE B-65 (CONTINUED) Rationale</p> <ul style="list-style-type: none"> • Verify <u>Determine</u> waste matrix. . . 	<p>Clarified waste analysis requirements for TRU mixed waste. “Verify” changed to “determine” for each waste matrix code summary category to be consistent with purpose of AK method. The justification for this change is provided in Sections 1.2.1., 1.2.2. and 1.3. of the revised PMR.</p>

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Section	Change	Explanation of Change
Table B-7	<p>TABLE B-76 <u>Lifetime Records</u></p> <ul style="list-style-type: none"> • Field sampling data forms • Field and laboratory chain-of-custody forms • Test facility and laboratory batch data reports • Waste Stream Characterization Package • Sampling Plans • Data reduction, validation, and reporting documentation • Acceptable knowledge documentation • Data reconciliation report • Waste Stream Profile Form and Characterization <u>Waste Analysis</u> Information Summary 	Clarified waste analysis requirements for TRU mixed waste. The justification for this change is provided in Section 1.2.1. of the revised PMR.
Table B-8	All of this table was struck out.	Moved to Attachment B7. The justification for this change is provided in Sections 1.2. and 1.2.2. of the revised PMR.
Table B-9	Table B- 9 <u>8</u>	Tables renumbered
Table B-10	Table B- 10 <u>9</u>	Tables renumbered
Figure B-2, B-3, B-5	B-2, B-3, B-5	These figures have been deleted.